

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number 500

TO: Dave Nguyen

Location: rem/2d31/2c18

Art Unit: 1632

Friday, April 29, 2005

Case Serial Number: 10/068160

From: Toby Port

Location: Biotech-Chem Library

REM1-A59

Phone: 272-2523

toby.port@uspto.gov

Search Notes

Dear Examiner Nguyen,

Here are the results of your search.

Please feel free to contact me if you have any questions.

Toby Port



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April 29, 2005, 04:31:54; Search time 791.351 Seconds (without alignments) 1224.620 Million cell updates/sec
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GenCore version 5.1.6.
Copyright (c) 1993 - 2005 Compugen Ltd.
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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result	ı	Query	:	1	!		
. NO.	Score	Match	Watch Length DB	BB	ID	Description	non
п	20	100.0	20	9	AX194432	AX194432	Sequence
7	20	100.0	20	9	AX194434	AX194434	Sequence
m	20	100.0	20	9	AX194437	AX194437	Sequence
4	20	100.0	20	9	AX194438	AX194438	Sequence
ហ	20	100.0	20	9	AX194443	AX194443	Sequence
9	20	100.0	20	9	AX194472	AX194472	Sequence
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σ	20	100.0	20	9	AX352242	AX352242	Sequence
10	20	100.0	20	ø	AX465382	AX465382	Sequence
11	20	100.0	20	9	AX465384	AX465384	Sequence
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13	20	100.0	20	9	AX465388	AX465388	Sequence
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17	20	100.0	22	9	AX352204	AX352204	Sequence
18	20	100.0	22	9	AX352248	AX352248	Sequence
19	20	100.0	28	9	AX352219	. AX352219	Sequence

AX352231 Sequence AX352237 Sequence AX352235 Sequence AX352167 Sequence AX14453 Sequence AX144453 Sequence AX144463 Sequence AX144481 Sequence AX154481 Sequence AX154481 Sequence AX194482 Sequence AX194500 Sequence AX19450 Sequence AX35221 Sequence AX3521 Sequence AX35221 Sequence AX35221 Sequence AX35221 Sequence AX35221 Sequence AX35221 Sequence	linear PAT 28-AUG-2001 duce an immune response and Human Services (US)	Length 20; 0; Indels 0; Gaps 0; 1inear PAT 28-AUG-2001
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Klinman,D., Ishii,K. and Verthelyi,D. Oligodeoxynucleotide and its use to induce an immune response Patent: WO 0151500-A 43 19-UUL-2001; Secretary of the Department of Health and Human Services (US)
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 72 19-JUL-2001;
Pertert: WO 0151500-A 72 19-JUL-2001;
Pertertary of the Department of Health and Human Services (US)
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Sequence 72 from Patent W00151500.
AX194472 AX194472.1 GI:15385128
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Sequence 43 from Patent WO0151500.
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Klinman,D., Ishii,K. and Verthelyi,D.
Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 34 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 38 19-JUL-2001;
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Sequence 37 from Patent W00151500.
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Sequence 38 from Patent WO0151500.
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Patent: WO 0211761-A 50 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Patent: WO 0193902-A 538 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Vaccine against RSV
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Sequence 50 from Patent WO0211761.
AX465382
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Sequence 52 from Patent W00211761.
AX465384
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 494 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 505 13-DEC-2001;
Blosynexus Incorporated (US)
Location/Qualifiers
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/noTe="Synthetic HDR"
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AX352209.1 GI:18617492
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Sequence 494 from Patent W00193902.
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Sequence 538 from Patent WO0193902.
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Vaccine against RSV
Patent: WO 0211761-A 90 14-FEB-2002;
HERRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Vaccine against RSV
Patent: WO 0211761-A 61 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Sequence 61 from Patent WO0211761.
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Sequence 90 from Patent WO0211761.
AX465422
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Vaccine against RSV
Barcent: W0 0211761-A 55 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Vaccine against RSV
Datent: W0 0211761-A 56 14-FEB-2002;
HENRY W JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
Patent: WO 0211761-A 52 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Sequence 55 from Patent W00211761.
AX465387
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Sequence 56 from Patent WO0211761.
AX465388
AX465388.1 GI:21899751
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Search completed: April 29, 2005, 08:03:40 Job time : 791.476 secs

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OM nucleic - nucleic search, using sw model Run on:

April 29, 2005, 04:24:29; Search time 203.919 Seconds (without alignments) 580.598 Million cell updates/sec

US-10-068-160A-1 20

Title: Perfect score: Sequence:

1 ggtgcatcgatgcagggggg 20

IDENTITY_NUC' Gapop 10.0 , Gapext 1.0 Scoring table:

4390206 segs, 2959870667 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

N_Geneseq_16Dec04:* Database :

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genesegn2003ds:* genesegn2004as:* genesegn2004bs:* geneseqn2003cs: genesegn2001bs:* genesegn2002as:* geneseqn2002bs:* geneseqn2001as:* geneseqn2003as:* geneseqn2000s:* geneseqn2003bs: : 2

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Regult No.	Score	Query	Query Match Length DB	DB	ID	Description	lon
	20	100.0	20	4	AAC80652	Aac80652	Immunogen
~	20	100.0	. 50	4	AAC80614	Aac80614	Immunogen
m	20	100.0	20	4	AAC80612	Aac80612	Immunogen
4	20	100.0	20	4	AAC80617	Aac80617	Immunogen
ហ	20	100.0	20	4	AAC80618	Aac80618	Immunogen
φ	20	100.0	20	4	AAC80623	Aac80623	Immunogen
7	20	100.0	20	4	AAS09622	AaB09622	Immunorea
8	20	100.0	20	4	AAS09582	Aas09582	Immunorea
σ	20	100.0	20	4	AAS09587	Aas09587	Immunorea
10	20	100.0	20	4	AAS09593	Aa809593	Immunorea
11	20	100.0	20	4	AAS09584	Aas09584	Immunorea
12	20	100.0	20	4	AAS09588	Aas09588	Immunorea
13	20	100.0	20	9	ABL35568	Ab135568	Immunosti
14	20	100.0	20	9	ABL35579	Ab135579	Immunosti
15	20	100.0	20	ø	ABL35612	Ab135612	Immunosti
16	20	100.0	. 20	9	ABK46500	Abk46500	Immunosti
17	20	100.0	20	9	ABK46460	Abk46460	Immunosti
18	20	100.0	20	9	ABK46465	Abk46465	Immunosti
19	20	100.0	20	9	ABK46471	Abk46471	Immunosti
20	20	100.0	20	9	ABK46462	Abk46462	Immunosti

3466 32309 33309 33310 33310 33310 331111 331111 331111 3311111 3311111 33111111	Ab135607 Immunosti
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	100.0
2222 2222 2222 2222 2222 2222 2222 2222 2222	45 20

ALIGNMENTS

RESULT 1 AAC80652

AAC80652 standard; DNA; 20 BP.

AAC80652;

14-FEB-2001

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:72. (first entry)

cpg oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic

WO200061151-A2.

19-OCT-2000.

12-APR-2000; 2000WO-US009839.

99US-0128898P. 12-APR-1999;

(KLIN/) KLINMAN D. (ISHI/) ISHII K. (VERT/) VERTHELYI D.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.

WO200061151-A2

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The invention relates to novel immunogenic CpG oligodeoxynucleotides CG (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5-NNNT-CpG-WNNN-3' or 5-RY-CpG-RY 3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with coligonucleotides of the sequence 5'-RN-CpG-RN-3' being able to induce a humoral response or a humoral lesoponse. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells cannot an accordance of natural killer (RN) cells. A cell-mediated or humoral response and dendritic cells), which then release cytokines, leading to activation of natural killer (RN) cells. A cell-mediated or humoral response is useful for treating, preventing or ameliorating an allergic reaction (preferably activation of ranductions of ranductions which may be treated include viral, the allergic conditions which may be treated include viral, conditions, and the infections which may be treated include viral, conditions which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be acted in combination with an anti-allergence of conditions, and the infections which may be acted in conditions and protozoal infections exposure to an agent of an incliment gestome is used in the treatment of an autoimment disorder (e.g., uppus exposure to an agent of biological warfare. An immunogenic cpg conditions of
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Claim 4; Page 35; 46pp; English.
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Gaps ; 0 100.0%; Score 20; DB 4; Length 20; 0; Indels Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other; 100.0%; Pred. No. 4.2 ive 0; Mismatches 1 GGTGCATCGATGCAGGGGG 20 1 gerecarcaracages 20 Best Local Similarity 100. Matches 20, Conservative Query Match Matches ઠે 셤

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AAC80614 standard; DNA; 20 BP 14-FEB-2001 (first entry) AAC80614; RESULT 2 AAC80614

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:34.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immuno response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; altergy; astchma; infection; bacterial; virtal; fungal; protozoal; parastitic; tuberculosis; AIDS; autoimmune disease; lugus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimincobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic

RESULT 3

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Gaps

The invention relates to novel immunogenic CpG oligodeoxynuclectides (AAC80581-C80723). The oligonuclectide are at least 10 bases long and comprise one of the generic sequences 5'-RNNT-CpG-WNNN-3' or 5'-RY-CpG-RY optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-delivery complex. The oligonucleotides are able to induce either a cell-delivery complex and those of the sequence 5'-RY-CpG-RY-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells cell-mediated response and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administred either alone or in combination with an anti-allergenic agent or anti-infectious agent. Thinitis, hayfever, urticaria, food allergies and other atopic conditions which may be treated include eczema, allergic conditions which may be treated include viral, thingal and protozoal infections enduction may also be includent and protozoal infections enduction may also be includent and protozoal infections enduction and conditions which may be treated include or high conditions which may be treated include viral, thingal and schistosomiasis Immune response induction and conditions which may be treated include or high conditions which may be treated or high conditions which may be trea Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent. used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic Cpd oligonuclectide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy immune response is used in antisense therapy and to improve the efficacy present sequence represents an immunogenic of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunog CpG oligodeoxynucleotide of the invention ; 0 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 4.2; 0; Indels Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other; 0; Mismatches Verthelyi D; GGTGCATCGATGCAGGGGGG 20 GGTGCATCGATGCAGGGGG 20 Claim 4; Page 29; 46pp; English. 99US-0128898P. 12-APR-2000; 2000WO-US009839 Query Match Best Local Similarity 100.0 Matches 20, Conservative Klinman D, Ishii K, (ISHI/) ISHII K. (VERT/) VERTHELYI D. WPI; 2001-006880/01. (KLIN/) KLINMAN D. 12-APR-1999; 19-OCT-2000. à 셤

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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5.*NNNT-vCpC-wNNN-3' or 5.*RX-CpG-RY -3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant comparadation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide of callumediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-NNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting calls (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T or B-cells. The induction of an immune response is useful for treating, preventing or maloucine with an anti-allergenic agent or anti-infectious agent.

The allergic conditions which may be treated and other alone or thinitis, harfactor untiper and other a
                                                                                                                                                                                                                                              CpG oligodeoxynucleotide, unmethylated, antigen-presenting cell, immunogenic; cytokine release, natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy, asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms
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                                                                                                                                                                                                 Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:32.
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                       AAC80612 standard; DNA; 20 BP
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(VERT/) VERTHELYI D.
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              oligonuclectide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonuclectide is preferably administered to the host. The present sequence represents an immunogenic CPG oligodeoxynuclectide of the invention
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exposure to an agent of biological warfare. An immunogenic CpG
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                                                                                                                                                                       Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;
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Matches 20; Conservative
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Verthelyi D;

Klinman D, Ishii K,

(VERT/) VERTHELYI D. (ISHI/) ISHII K.

WPI; 2001-006880/01.

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cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with coligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-RNT-CpG-RNN-3' cell-mediated response, and those of the sequence 5'-RNT-CpG-RNN-3' cell-mediated response in the sequence 5'-RNT-CpG-RNN-3' dainy able to induce a humoral response. It is thought that after after cells administration, the oligonucleotide acts on antigen-presenting cells celg. "A macrophages and dendritic cells, which then release cytokines, cleaning to a timmune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or conditions with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include eczema, allergic conditions which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include at the createment of an autoimmune disorder (e.g., lupus cused in the treatment of an autoimmune disorder (e.g., lupus cused in the treatment of an autoimmune disorder (e.g., lupus exposure to an agent of biological warfaire, and multiple sclerosis), a disease exposure to an agent of biological warfaire. An immunogenic CpG exposure to an agent of biological warfaire, and multiple sclerosis), and exposure exposure to an agent of biological warfaire, and multiple may also be appeared to the process of the pr
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complex. The oligonucleotides are able to induce either a cell-
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nes 20; Conservative
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99US-0128898P.

12-APR-1999;

(KLIN/) KLINMAN D.

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The invention relates to novel immunogenic CpG oligodeoxynuclectides (AACG0581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNY-CpG-WNNN-3' or 5'-RY-CpG-RY -3'. The central CpG motif is unmethylated, and the oligonucleotides of optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting an oligonucleotide of the invention and a targetting complex complex. The oligonucleotides are able to induce either a cell-coligonucleotides are able to induce either a cell-mediated response, and those of the sequence 5'-RN-CpG-RY-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells cell-ministration, the oligonucleotide acts on antigen-presenting cells administration, the oligonucleotide acts on antigen-presenting cells cell-ministration of natural killer (MX) cells. A cell-mediated or humoral response is useful for treating, preventing or antionating on them occur by activation of T- or B-calls. The humoral response is useful for treating, preventing or an immunogenic Cgo oligonucleotide is administered either alone or the allergic conditions which may be treated include escama, allergic conditions, and the infections which may be treated include viral, conditions, and protozoal infections encount of exposure to an agent of anti-intections and evidence or the ishmania and solisosomiasis. Immune response induction may also be expensed in the infections which may be treated include escama, allergic conditions, and protozoal infections encount of an agent of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease conditions, and protozoal infections with an ani-incliment of an agent of an actoimmune response is used in alone or in combination with an ani-incliment and experience of a vaccine
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                                                                                                                                               Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                              Claim 4; Page 30; 46pp; English.
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Best Local Similarity
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immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humcal response; B-cell response; antibody production; immune response induction; vaccine allergy; asthma; infection; bacterial; viral; fungal; protozoal; parastic; tuberculosis, AIDS; autoimmune disease; lupus erythematosus, rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare aspent; cytostatic; antiarthritic; antialcobial; antiallergic; protozoacide; tuberculostatic; antiathmatic; dermatological; phosphorothioate; ss.

Synthetic.

WO200061151-A2

19-OCT-2000.

12-APR-2000; 2000WO-US009839.

99US-0128898P .2-APR-1999;

(KLIN/) KLINMAN D.

(ISHI/) ISHII K. (VERT/) VERTHELYI D.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms allergies, cancer, and autoimmune disorders and resulting from exposure to a bio-warfare agent.

Claim 4; Page 30; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides CAR80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5.*NNNT-CpG-WNNN-3' or 5.*RX-CpG-RY -3. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell.

Cc delivery complex. The oligonucleotide are able to induce either a cell.

Cc delivery complex. The sequence 5.*RY-CpG-RY-3' being able to induce a cell-mediated response or a humoral response. It is thought that after cell-mediated response and dendritic cells), which then release cytokines, cell-mediated or immunogenic contral killer (RN) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or amolioration of an immune response is useful for treating, preventing or amolioration with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic conditions which may be tr lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

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                                                                                                                                                                      CpG sequence; immune response; non-B cell activation; interferon gamma; therageuric; altergy, asthma; cancer; autoimmune disorder; intection; therapeutic; altergy, asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antiesnes therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schibtcosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; se.
                   Gaps
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                                                                                                                                                      Immunoreactive CpG sequence-containing oligonucleotide #72.
Length 20;
                  0; Indels
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DB
                   Mismatches
Score 20;
Pred. No.
                                    20
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100.0%;
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                                                                                                 AAS09622 standard; DNA; 20 BP
                                                                                                                                     (first entry)
                  Conservative
        Similarity
                 20;
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                                                                                                                    AAS09622;
Query Match
Best Local (
                  Matches
                                                                                RESULT 7
                                                                                          AAS09622
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12-JAN-2001; 2001WO-US001122. 14-JAN-2000; 2000US-0176115P.

WO200151500-A1.

Synthetic.

19-JUL-2001.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG весперв

Claim 5; Page 39; 48pp; English.

nucleotides comprising multiple configurations, where one of the configuration multiple configuration, where one of the configuration is equences is different from another of the multiple CpG sequences. The cobm are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, inherferon gamma (IRV-gamma) production or a humoral immune response involving B cell activation, an inferior inferior in a host, for treating, preventing or ameliorating an allergic reaction, e.g. solid tumour cancer, a disease associated with the immune cancer, e.g. solid tumour cancer, a disease associated with the immune or system deflicancy, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or coryza, hay fever, bronchial asthema, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines and acther atopic conditions, for improving the efficacy of vaccines malaria, for treating immune system defliciency virus (HIV) and malaria, for treating immune system defliciency are rheumatonia and autorimument immunodician, e.g. lupus error errors. AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 nultiple sclerosis, infections including Francisella, schistosomiasis,

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ourgodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autcimmune disorder; intection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schiscosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and
                symptoms resulting from exposure of bio-warfare agent, including Ebola, Anthrax and Listeria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    interferon gamma;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunoreactive CpG sequence-containing oligonucleotide #32.
                                                                                                             Score 20; DB 4; Length 20;
Pred. No. 4.2;
                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence; immune response; non-B cell activation;
                                                                            Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;
                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leishmania; Ebola; Anthrax; Listeria; ss.
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                                                                                                                                                                                                                       GGTGCATCGATGCAGGGGGG
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                                                                                                                   100.08;
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                                                                                                                                        100.08;
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                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                         20; Conservative
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                                                                                                                                      Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IEN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rhematoid arthritis; multiple sclerosis; schistcsomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.
and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Bbola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence; immune response; non-B cell activation; interferon gamma;
                                                                                                                                                                                                                                                                          Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunoreactive CpG sequence-containing oligonucleotide #37.
                                                                                                                                                                                                                                 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 4.2;
                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                        Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                     Anthrax and Listeria
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                                                                                                                                                                                                                                                       Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
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induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepstitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematoeus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, a symptom resulting from exposure to bio-warfare agent in a human. Anthrax and Listeria 88888888888888888888

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

Gaps ; Score 20; DB 4; Length 20; Pred. No. 4.2; 0; Indels Mismatches 20 1 ĠĠŦĠĊĄŦĊĠĄŦĠĊĄĠĠĠĠĠ ö 1 GGTGCATCGATGCAGGGGGG 100.08; 100.0%; Query Match Best Local Similarity 100. Matches 20; Conservative 윰 ð

ö

AAS09593 standard; DNA; 20 BP AAS09593;

(first entry) 26-SEP-2001 Immunoreactive CpG sequence-containing oligonucleotide #43.

IFN-gamma; humoral; antibody production; interleukin'6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare, vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; hupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistcosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss. sequence; immune response; non-B cell activation; interferon gamma;

Synthetic.

WO200151500-A1.

19-JUL-2001

12-JAN-2001; 2001WO-US001122

14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Ishii K, Klinman D,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG Bequences

Claim 5; Page 34; 48pp; English.

AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are ueeful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon

call activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other actopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus crythematosus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, gamma (IFN-gamma) production or a humoral immune response involving B Anthrax and Listeria

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

Gaps .. 0 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 4.2; 0; Indels Mismatches 100.0%; FAC. Conservative Local Similarity les 20, Conserv Query Match Best Loc Matches

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1 GGTGCATCGATGCAGGGGGG 20 GGTGCATCGATGCAGGGGG 20

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RESULT 11 AAS0958

AAS09584 standard; DNA; 20 BP

AAS09584;

(first entry) 26-SEP-2001 Immunoreactive CpG sequence-containing oligonucleotide #34.

CpG sequence; immune response; non-B cell activation; interferon gamma; therageutic; altergy; asthma; cancer; autoimmune disorder; infection; blo-warfare; vaccine; autisense therapy; eczema; altergic infection; coryza; hay fever; urticaria; hives; food altergy; atopic condition; human immunodeficiency virus; HIV; malaria; Prancisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; 88.

Synthetic.

WO200151500-A1.

19-JUL-2001.

L2-JAN-2001; 2001WO-US001122

14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sednences.

Claim 5; Page 32; 48pp; English.

nucleotides comprising multiple COG sequences, where one of the COG sequences is different from another of the multiple COG sequences. The coll are useful for inducing an immune response, preferably a cell-condition in a host, for cell activation, interferon cancer involving non-B cell activation, interferon cell activation, antibody and interlewin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthmaction cancer, e.g. solid tumour cancer, a disease associated with the immune cystem e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating perventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiency virus (HIV) and cantification immune system deficiencies, e.g. lupus control infantation infantat multiple sclerosis, infections including Francisella, schistosomiaais, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

ö Gaps ; 0 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 4.2; 0; Indels Mismatches ; Local Similarity 100. nes 20; Conservative Query Match Matches

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RESULT 12 AAS09588

AAS09588 standard; DNA; 20 BP

AAS09588;

(first entry) 26-SEP-2001 Immunoreactive CpG sequence-containing oligonucleotide #38.

IEN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; blo-wardrare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss. sequence; immune response; non-B cell activation; interferon gamma;

WO200151500-A1.

19-JUL-2001

12-JAN-2001; 2001WO-US001122.

(USSH) US DEPT HEALTH & HUMAN SERVICES. 14-JAN-2000; 2000US-0176115P.

Verthelyi D; Ishii K, Klinman D,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms

nucleotides comprising multiple COG sequences, where one of the CDG sequences is different from another of the multiple CDG sequences. The convairable for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B CC cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma. Cc system e.g. solid tumour cancer, a disease associated with the immune cy system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is convain antisease therapy. The ODN are useful for treating preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of vaccines cand other atopic immune system deficiencies, e.g. lupus conditions in infantial asthma timmunodeficiency virus (HIV) and control and allergies and attended and diseases such as rheumatchy and control and infantial control arthritis and control arthritis and control and control and control and control and control control and control contr ö Leishmania and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, represent oligodeoxynucleotides (ODN) of at least 10 Gaps resulting from exposure to bio-warfare agents, comprise multiple CpG , 0 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 4.2; 0; Indels Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other; Mismatches 20 20 Claim 5; Page 33; 48pp; English ; 1 GGTGCATCGATGCAGGGGGG ABL35568 standard; DNA; 20 Local Similarity 100. Anthrax and Listeria AAS09551-AAS09662 ABL35568; Query Match Matches RESULT 13 ABL35568 $\texttt{FFX} \\ \texttt{XX} \\ \texttt{X$ à

(first entry) 04-APR-2002

Immunostimulatory oligonucleotide SEQ ID NO: 494.

infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss. DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine;

Synthetic

/note= "optionally thymidine is replaced by uracil to form RNA or DNA/RNA hybrids. Thymidine is linked to at least one other base through a ribose sugar" Location/Qualifiers /*tag= WO200193902-A2 Key misc_RNA

07-JUN-2001; 2001WO-US018276

07-JUN-2000; 2000US-0209797P.

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                                                                                                                                               The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
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/*teg= a
/orte= "optionally thymidine is replaced by uracil to
/orm RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antinflammatory; antibacterial; ss.
                                                              oligonuclectides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
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                        Klinman DM;
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nes 20; Conservative
  (BIOS-) BIOSYNEXUS INC.
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                      Flora M,
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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytckines: It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, heparitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Bbola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
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                                                                                                                      New immunostimulatory compositions comprising RNA/DNA hybrid oligonuclectides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
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Mond JJ, Flora M, Klinman DM;
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ABL35612
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WPI; 2002-130570/17.

New immunostimulatory compositions comprising RNA/DNA hybrid obligonuclectides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.

Example 11; Page 61; 68pp; English.

The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic thinitis, hay fever or food allergies), Lyme disease, heparitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

0; Gaps Query Match
Best Local Similarity 100.0%; Pred. No. 4.2;
Matches 20; Conservative 0; Mismatches 0; Indels

1 GGTGCATCGATGCAGGGGG 20

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Search completed: April 29, 2005, 06:25:59 Job time : 206.919 secs

1 GGTGCATCGATGCAGGGGG 20

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GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
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OM nucleic - nucleic search, using sw model

April 29, 2005, 05:15:22; Search time 1875.14 Seconds (without alignments) 405.990 Million cell updates/sec Run on:

US-10-068-160A-1 20 1 ggtgcatcgatgcagggggg 20 Title: Perfect score: Sequence:

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

34239544 segs, 19032134700 residues Searched:

68479088 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 su

Bummaries

Database

1: 90_est1:*
2: 90_est1:*
3: 90_htc:*
4: 90_est3:*
5: 90_est4:*
6: 90_est4:*
6: 90_est6:*
8: 90_9ss1:*
9: 90_9ss1:* 9 6 3 6

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

					SUMMARIES	
Result No.	Score	Query Match	Length DB	08	ID	Description
-	7 0 -			-		
1	.01	24.0	107	4	W/20020/	AV20628 / AV20528 /
7	17.4	87.0	240	-	AV281636	AV281636 AV281636
٣	17.4	87.0	303	ч	AV269637	
Ω	17.4	87.0	473	4	BI507147	
S	17.4	87.0	1214	Ŋ	BQ898390	
φ υ	17	85.0	541	80	B01614	B01614 CSRL-134910
c 7	17	85.0	807	9	CA101677	CA101677 SCACHR104
ھ ن	17	85.0	839	Φ	CG066914	CG066914 PUIBJ87TD
o U	16.8	84.0	272	ഗ	BX639713	BX639713 BX639713
10	16.8	84.0	597	٦	AV028453	AV028453 AV028453
c 11	16.8	84.0	631	4	BJ244833	BJ244833 BJ244833
12	16.8	84.0	638	٦	AL692509	AL692509 AL692509
c 13	16.8	84.0	648	9	CB065500	CB065500 EST645181
c 14	16.8	84.0	655	7	C0101616	CO101616 GR Eb002
15	16.8	84.0	671	4	BJ229325	BJ229325 BJ229325
c 16	16.8	84.0	671	9	CA920724	CA920724 EST638442
17	16.8	84.0	685	4	BJ634520	BJ634520 BJ634520
18	16.8	84.0	697	4	BJ250701	BJ250701 BJ250701
c 19	16.8	84.0	740	4	BJ617983	BJ617983 BJ617983
20	16.8	84.0	898	σ	CG675673	CG675673 trs3405 t
21	16.8	84.0	927	4	BI733127	BI733127 603354541
	16.8	84.0	979	ø	CA157988	CA157988 SCEZRZ304
c 23	16.8	84.0	1206	σ	CG747404	CG747404 P040-4-H0
c 24	16.4	82.0	245	7	AW325275	AW325275 TENU4637

Please visit our web site (http://genome.rtc.riken.go.jp) for

	AQ444154 GSSTC0207	CB966250 NL34 G07	BH374854 AG-ND-105	BQ875411 QGI8A19.y	BH450526 BOGFX73TR	C0075430 GR Ea36C	вн996954 оер83h09.	BH577346 BOGGD05TR	BH685253 BOMMA43TR	BH471235 BOGRT27TR	CE730492 tigr-gss-		BZ063097 11d86b12.	BZ449138 BONHP21TF	CA766588 AF53-Rpf	BZ449800 BONDQ35TR	BH128747 G-3011 Ma	CC588288 CH240 386	AG073881 Pan trogl	AG056417 Pan trogl
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259	277	374	553	584	621	665	670	619	700	702	705	712	738	747	818	853	998	915	960	1014
82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
25	56	27	28	53	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
υ	U		υ		υ	υ		O	υ	υ	υ		υ	υ		υ	υ	υ	υ	υ

ALIGNMENTS

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prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper. Second strand cDNA was prepared with the primer adapter of sequence [5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AV269637
AV269637 RIKEN full-length enriched, adult male testis (DH10B) Musmusculus CDNA clone 4930544G09 3', mRNA sequence.
AV269637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Kus. 1 (Dases 1 to 303)
Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Carninci, P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N., Hirozane, T., Hori, F., Ishikawa, T., Itoh, M., Kadota, K., Kagawa, I., Ishi, Y., Ishikawa, T., Itoh, M., Kojima, Y., Koya, S., Kusakabe, M.,
                                                                                                      Transcriptional sequencing: A method for DNA sequencing using RNA polymerase. Proc. Natl. Acad. Sci. U.S.A. 95 (7), 3455-3460 (1998) Itoh,M., Kiteunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J., Okazaki,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Okazaki,Y. and Hayashizaki,Y. Abibata,Y., Ozawa,Y., Muramatsu,M., Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999) Carninci,P. and Hayashizaki,Y. High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anotes Site 1: Sall; Site 2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia project of Genome Exploration Research Group in Riken Genomic Science Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. ist strand cDNA was primed with a primer [5].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone lib="RIKEN full-length enriched, adult male testis (DH108)"
Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
Sasaki,N., Izawa,M., Watahiki,M., Ozawa,K., Tanaka,T., Yoneda,Y.,
Matsuura,S., Carninci,P., Muramatsu,M., Okazaki,Y. and
Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                  19-44 (1999)
Please visit our web site (http://genome.rtc.riken.go.jp) for
further details.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17.4; DB 1; Length 240;
Pred. No. 6.1e+02;
0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
/clone="4933425J05"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="testis"
/dev_stage="adult"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
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Mus musculus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18; Conservative
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AUTHORS
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AV269637
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (base 1 to 240)

Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Carninci, P., Endo, T.,

Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N., Hirozane, T., Hori, F.,

Ishii, Y., Ishikawa, T., Itoh, M., Izawa, M., Kadota, K., Kagawa, I.,

Kai, C., Kawai, J., Kikuchi, N., Kojima, Y., Koya, S., Kusakabe, M.,

Matsuyama, T., Miki, R., Mizuno, Y., Naramira, N., Oda, H., Okazaki, Y.,

Shibata, Y., Shigemoto, Y., Shiraki, T., Sogabe, Y., Subata, K.,

Suzuki, H., Takahashi, F., Tateno, M., Tominaga, N.,

Tsunoda, Y., Wataniki, A., Watanabe, S., Yamamura, T., Yasunishi, A.,

KIKEN Mouse ESTS (Konno, H., et al. 1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AV281636 AV281636 RIKEN full-length enriched, adult male testis (DH10B) Mus musculus cDNA clone 4933425J05 3', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                      Inote="Site 1: Sal1; Site 2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Science Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was primed with a primer [5" of Primer [5" of Primer [5" of Primer [5]]], cDNA was GAGAGAGAGACCAAGAGCTCTTTTTTTTTTTTVN 3'], cDNA was
                                                                                                                                                                                                                                                                                                            /clone lib="RIKEN full-length enriched, adult male testis (DH10B)"
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Laboratoryr for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suchiro-cho,
Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Fax: 81-45-503-9216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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95.0%; Pred. No. 1.9e+02;
ive 0; Mismatches 1;
                                                                                        organism="Mus musculus"
                                                                                                                                                                        'db xref="taxon:10090"
                                                                                                                                                                                                                                                        tissue_type="testis"
                               location/Qualifiers
                                                                                                                                                                                                  clone="4930534F16"
                                                                                                                  mol_type="mRNA"
strain="C57BL/6J"
                                                                                                                                                                                                                                                                               dev_stage="adult"
|ab_host="DH10B"
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                                                                                                                                                                                                                              sex="male"
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        further details,
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Best Local Similarity
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                                  FEATURES
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COMMENT

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Tel: 217 265 0309

Tel: 217 265 0309

Fax: 217 244 3499

Fax: 217 244 3499

Fax: 217 244 3499

This research was funded by the University of Illinois Critical Research mititatives Fund and a Burroughs-Wellcome Trust Innovation Award in Functional Genomics to G.E. Robinson and an NSF Postdoctoral Fellowship in Bioinformatics to C.W. Whitfield.

REPERT IN THE SEQUENCE

SIMple repeat STRAND (+) ELEMENT (A) n LOCATION [449,468].
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/note="Organ: brain; Vector: pf773-Pac; Site_1: EcoR1;
/note="Organ: brain; Vector: pf773-Pac; Site_1: EcoR1;
/note="Organ: bB17"
/note bB16 library was generated by sequenced clones. The BB16 library with 4000 previously sequenced clones. The BB16 library was contributed by the Soares laboratory and it was constructed and normalized as described by Bonome Research 6(9): 791-806. RNA was prepared from dissected brains of adult worker bees of
          BB170025B20H07.5 Bee Brain Normalized/Subtracted Library, BB17 Apis mellifera cDNA clone BB170025B20H07 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                           Apidae; Apis.

1 (bases 1 to 473)

Whitfield, C.W., Band, M.R., Bonaldo, M.F., Kumar, C.G., Liu, L.,
Pardinas, J., Robertson, H.M., Soares, B. and Robinson, G.E.
Pardinas, J., Robertson, H.M., Soares, B. and Robinson, G.E.
Pardinas, J., Robertson, H.M., Soares, B. and CDNA microarrays for studies of brain and behavior in the honey bee
Genome Res. 12 (4), 555-566 (2002)
                                                                                                                                                                                                                        Apis mellifera (honey bee)
Apis mellifera
Bukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Hymenoptera, Apocrita, Aculeata, Apoidea,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. 473
Aorganism="Apis mellifera"
/mot uppe="mRNA"
/strain="mixed strains of European bees, predominantly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="brain"
/dev_stage="adult worker honey bee"
/lab_host="DH10B"
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BACKWARD: ATTAACCCTCACTAAAG
Plate: BB170025B20 row: H column: 07
Seq primer: AGGGGATAACAATTTCACAGGA
High quality sequence stop: 473.
Location/Qualifiers
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/clone="BB170025B20H07"
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Department of Entomology
University of Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A.m. ligustica"
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DEFINITION
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Mateuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y., Owa, C., Ozawa, Y., Saito, H., Sano, M., Sato, K., Shibata, K., Shibata, K., Shibata, Y., Shiraki, T., Sogabe, Y., Shibata, Y., Suzuki, H., Takahashi, F., Tateno, M., Tominaga, N., Taunoda, Y., Watahiki, A., Watanabe, S., Yamamura, T., Yasunishi, A., Yoshino, M., Muramatsu, M. and Hayashizaki, Y. RIKEN Mouse ESTS (Konno, H., et al. 1999)

AL Unpublished (1999)

Contact: Yoshinide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1.7-22 Suchino-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9216
Email: genome-reseggsc.riken.jp, URL:http://genome.gsc.riken.jp/Sasaki, N., Izawa, M., Watahiki, M., Ozawa, K., Tanaka, T., Yoneda, Y., Matsuura, S., Carninci, P., Muramatsu, M., Okazaki, Y. and Hayashizaki, Y.
Transcriptional sequencing: A method for DNA sequencing using RNA polymerase. Proc. Natl. Acad. Sci. U.S.A. 95 (7), 3455-3460 (1998)
Itoh, M., Kitsunai, T., Akiyama, J., Shibata, K., Izawa, M., Kawai, J., Okazaki, Y. and Hayashizaki, Y. and Hayashizaki, Y. and Hayashizaki, Y. Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999)
Carninci, P. and Hayashizaki, Y. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              was cloned into the XhoI and BamHI sites. Vector: a modified pBluescript KS(+) after bulk excision from Lambda FLC I. Cloning sites, 5' end: SalI; 3' end: BamHI."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tissue_type="testis"
/dev_stage="adult"
/lab_host="DH10B"
clone_lib="RIKEN full-length enriched, adult male testis
(DH10B)
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    .303
    /organism="Mus musculus"
/mol_type="mRNA"
    /strain="C57BL/6J"

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/clone="4930544G09"
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ö Gaps ö 87.0%; Score 17.4; DB 4; Length 473; 94.7%; Pred. No. 6.4e+02; ive 0; Mismatches 1; Indels (various ages and various behavioral groups. 336 GGTGCATCGAAGCAGGGGG 318 1 GGTGCATCGATGCAGGGGG 19 Query Match
Best Local Similarity 94.7'
Matches 18; Conservative ð 셤

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Gaps ö

Score 17.4; DB 1; Length 303; Pred. No. 6.2e+02; 0; Mismatches 1; Indels (

87.0%;

Query Match
Best Local Similarity 94.7
Matches 18; Conservative

RESULT 5 BQ898390/c

RESULT 4 BIS07147/c

142 GTGCATCGAGGCAGGGGG 160

2 GIGCATCGAIGCAGGGGG 20

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Seq primer: T7
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1 (bases I to 541)

Evans, G.A., Burbee, D., Davies, C., Hahner, L., Oliver, T., Gilbert, M., Jones, D., Ward, T., Gillilan, E., Schagemann, J., Probst, S. ., Harris, J., DeFord, J., McFarland, J., Burzinski, K., Khan, M., Kupfer, K. and Garner, H.R.

Genomic Sequence Sampled Map of Chromosome 11

Unpublished (1996)

Contact: Evans GA, Shane Probst
1214 bp mRNA linear EST 16-AUG-2002
AGENCOURT_8712137 NIH_MGC_112 Homo sapiens cDNA clone IMAGE:6295181
BQ898390
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                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTD
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information con be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.lln.gov
Plate: LLCM2501 row: a column: 06
High quality sequence stop: 150.
                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1 (Dases 1 to 1214)

NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .1214
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6295181"
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                                                                                        BO898390.1 GI:22290404
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Homo sapiens
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                                                                                                                                      Homo sapiens (human)
                                                                                                                                                            Homo sapiens
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Matches 18; Conserv
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Saccharum officinarum
Saccharum officinarum
Bukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopaida; Poales; Poaceae; PACCAD
Slade, Panicoideae; Andropogoneae; Saccharum; Saccharum officinarum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Vector: sCos-1; Human Chromosome 11 specific cosmid
library prepared from flow sorted human Chromosome 11
derived from Chinese Hampster Ovary (CHO) monochromosomal
somatic cell hybrid, J1"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: parruda@unicamp.br
Clone distribution: clone distribution information can be found
through the Brazilian Clone Collection Center (BCCC) at
http://www.bccenter.fcav.unesp.br
Plate: 040 row: C coluum: 03
Seq primer: T7 Promoter Primer.
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/cell type="chimeric hamster somatic cell hybrid"
/clone lib="cSRL flow sorted Chromosome 11 specific
cosmid"
                               Dallas
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                                                                                                            Fax: 214-648-1666
Email: gevans@utsw.swmed.edu, shane@mcdermott.swmed.edu
PCR PRIMETS
FORWARD: TACTAAAGCGAAGCTAGGTG
BACKWARD: TTTGGACAGATTTAGCTCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.0%; Score 17; DB 8; Length 541; 100.0%; Pred. No. 1e+03; ive 0; Mismatches 0; Indels
McDermott Center for Human Growth and Development
University of Texas Southwestern Medical Center At
5323 Harry Hines Blvd, Dallas TX 75235-8591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vettore, A.L., da Silva, F.R., Kemper, E.L. and Arruda
The libraries that made SUCEST
Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
Contact: Arruda P
Centro de Biologia Molecular e Engenharia Genetica
Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP, Brazil
Tel: 55 19 3788 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Saccharum officinarum"
/mol_type="mRNA"
/db_xref="taxon:4547"
/clone="SCACHR1040C03"
                                                                                                                                                                                                                                                                                                                                                             1. :541
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/db_xref="taxon:9606"
/clone="cSRL-134910"
                                                                                                                                                                                                                                                                                                            High quality sequence stop: 5
Location/Qualifiers
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1 (bases 1 to 807)
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CA101677
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Best Local Similarity 100.
Matches 17; Conservative
                                                                                        Tel: 214-648-1600
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Mouse ArrayTAG cDNA (LION)
http://www.rzpd.de/cgi-bin/products/showLib.pl.cgi/response?libNo=4
62 Contact: Ina Rolls
RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH
Heubnerweg 6, D-14059 Berlin, Germany
Tel: +49 30 32639 101
www.rzpd.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
I (bases 1 to 597)
Carninci, P., Shibata, K., Ozawa, Y., Konno, H., Itoh, M., Aizawa, K., Akahira, S., Akiyama, J., Fukuniahi, Y., Funayama, T., Akahira, S., Akiyama, J., Fukuniahi, Y., Funayama, T., Kawai, J., Kikuchi, N., Kojima, Y., Matsuyama, T., Niitsuma, H., Oda, H., Owa, C., Sato, K., Shibata, Y., Shigamoto, Y., Shiraki, T., Sogabe, Y., Tominaga, N., Watanabe, S., Yagame, M., Yamamura, T., Yokota, T.,
                                                        BX639713 BIUGECTIPT LION MUS MUSCULUS CDNA CLOND LIOND462H0719 3',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AV028453 ST 31-AUG-1999 AV028453 Mus musculus adult C57BL/6J brain Mus musculus cDNA clone 1432000G13, mRNA sequence.
                                                                                                                                                                                                                                                                  Mus musculus
Musaryoza, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Musmalla; Butheria; Rodentia, Sciurognathi; Muridae, Murinae; Mus
1 (bases 1 to 272)
1 (bases 1 to 272)
1 (bases 1 to 272)
2 (bases 1 to 272)
3 (bases 1 to 272)
4 (bases 1 to 272)
5 (bases 1 to 272)
6 (bases 1 to 272)
7 (bases 1 to 272)
8 (bases 1 to 272)
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This clone is available royalty-free from RZPD;
contact RZPD (clone@rzpd.de) for further information. Seg primer:
RP: CAGGAAACAGCTATGAC.
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Im Neuenheimer Feld 580, D-69120 Heidelberg, Germany
RZPD; LIONp462H0719.
RZPDLIB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
/mol_type="mRNA"
/db_xrefe="taxon:10090"
/clone="LIONP462H0719"
/lab_host="DH108"
/clone_lib="pBluescript_Lion"
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BX639713.1 GI:33619588
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                                                                                                                       mRNA sequence.
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RESULT 9
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            /clone lib="MRI"
//noce="Organ: seedlings inoculated with Herbaspirilum
rubrisubablicans, Vector: pSport1; Site 1: Sal1; Site 2:
Not1; An unidirectional cDNA library generated from
[seedlings inoculated with Herbaspirilum
rubrisubablicans]. ODNA was prepared from poly4+ mRNA
using SuperScript Plasmid System Kit (Invitrogen). The
double-strand cDNAs were fractionated in a sepharose
CL-28 40cm-columns and fragments sizing between 0.8 and
1.5 Kb were directionally cloned into the vector. Details
of each source of RNA and library construction can be
obtained at http://sucest.lad.ic.unicamp.br/public"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CG066914 B39 bp DNA linear GSS 19-AUG-2003 PUIBL87TD ZM 0.6_1.0_KB Zea mays genomic clone ZMWBTa0544P06, genomic survey sequence. CG066914.1 GI:33939094
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(Dases 1 to 839)
Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Frager, C.M., Yuan, Y., San Miguel, P., Ma, J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:4577"
/clone="XMMBTa0544P06"
/clone="1b="ZM_0.6_1.0 KB"
/note="Wetcr: pCR4-TOP0; Site_1: EcoRI; 0.6-1.0 kb high
CoT selected genomic DNA libraTy"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Tel: 301-838-5843
Fax: 301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 807;
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Pred. No. 1.1e+03;
0; Mismatches 0;
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/mol_type="genomic DNA"
/strain="B73"
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Class: sheared ends.
Location/Qualifiers
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Maize Genomics Consortium
Unpublished (2003)
Other GSSs: PUIBJ87TB
Contact: Cathy Whitelaw
lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 85.0%; Scc
1 Similarity 100.0%; P1
17; Conservative 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32 GCATCGATGCAGGGGG 16
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Honoparates.

Schristophides, G.K., Blass, K., Zdobnov, E.M., Carmouche, R., Benes, V. and Kafatcs, F.C.
Anopheles gambiae EST, European Molecular Biology Laboratory Unpublished (2002)
Contact: Christophides GK
Fotis C. Kafatcs laboratory
European Molecular Biology Laboratory
European Molecular Biology Laboratory
Meyerhofstrasse 1, 69117 Heidelberg, Germany
Tel: +49 6221 387-306
Email: christop@embl-heidelberg.de
Plate: POS row: H column: 10.

Solution/Qualifiers
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EST645181 HOGA Medicago truncatula cDNA clone HOGA-19K1, mRNA
                                                                                                                                                                                                                                                                                 AL692509 AA Anopheles gambiae CDNA clone NAH-P05-H-10-5, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /lab host="E. coli DH10B"
/clone_lib="NAH"
/note="Vector: pT773D-Pac (Pharmacia); Site_1: NotI;
/note="Vector: pT773D-Pac (Pharmacia); Site_1: NotI;
/note="Vector: pT773D-Pac (Pharmacia); Site_1: NotI;
/clone from the T7 priming site that reads from the 5' end of CDNA. The NAP1 is a directionally cloned and normalized, oligo-T primed CDNA library constructed from heads of Anophales gambiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           according to: Bonaldo, Lennon & Soares (1996):
Normalization and Subtraction: Two Approaches To
Facilitate Gene Discovery, Genome Research 6, 791-806."
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Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
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84.0%; Score 16.8; DB 1; Length 638;
Best Local Similarity 90.0%; Pred. No. 1.3e+03;
Matches 18; Conservative 0; Mismatches 2; Indels
                                       Length 631;
                                                                                   Indels
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                                     Score 16.8; DB 4;
Pred. No. 1.3e+03;
0; Mismatches 2;
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/db_xref="taxon:7165"
/clone="NAH-P05-H-10-5"
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                                       84.0%;
90.0%;
                                            Query Match
Best Local Similarity 90.03
Matches 18; Conservative
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CB065500.1
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CB065500/c
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AL692509
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                                                                                                                                                           Tel: 81-298-36-9145
Fax: 81-298-36-9098
Email: genome-resertc.riken.go.jp
Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA (proc. Natl. Acad. Sci. U.S.A. 95(5):520-524 (1998))
Transcriptional sequencing: A method for DNA sequencing using RNA polymerase (Proc. Natl. Acad. Sci. U.S.A. 95(7):3455-3460 (1998))
Please visit our web site (http://genome.rtc.riken.go.jp) for
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I (bases I to 631).

Cogihara; V. and Murai, K.

Expressed genes in Triticum aestivum
Unpublished (2002).
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/dev_stage="Peekes' scale 10.5.1"
/clone lib="Y. Ogihara unpublished cDNA library, Wh_f"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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/clone_lib="Mus musculus adult C57BL/6J brain"
Yoshino,M., Muramatsu,M., Okazaki,Y. and Hayashizaki,Y.
RIKEN Mouse ESTs
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 16.8; DB 1; Length 597;
Pred. No. 1.3e+03;
0; Mismatches 2; Indels C
                                                                                                                                      3-1-1 Koyadai, Tsukuba, Ibaraki 305-0074, Japan
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Contact: Tadasu Shin-i
Center For Genetic Resource Information
National Institute of Genetics
National Institute of Genetics
Tel: 81-559-81-6856
Fax: 81-559-81-6855
Email: tshini@genes.nig.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Triticum aestivum"
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/cultivar="Chinese Spring"
/db_xref="taxon:4565"
/clone="whf16m07"
                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="1432000G13"
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Triticum aestivum
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                                                              Contact: Chie Owa
Genome Science Laboratory
RIKEN
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90.0%;
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Matches 18; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /db xref="taxon:380"
/db xref="taxon:380"
/clone="HOGA-19K1"
/tissue_type="3 day old seedling roots"
/dev_stage="3 day old seedling roots"
/dev_stage="24 hours after treatment in the dark at 26 C
with_0.5 mg/ml oligogalacturonides (DP 6-20) in the
presence of 100 ug/ml Gentamicin"
/lab host="XLOIR"
/clone_lib="HOGA"
/clone_lib="HOGA"
/note="Vector: pBluescript SK-; Site_l: EcoRI; Site_2:
XhoI; cDNA was prepared from polyA+ enriched RNA. The cDNA
was directionally ligated into the Unizap XR vector from
Stratagene and packaged using Giapack III Gold packaging
extracts. Plasmids containing CDNA inserts were excised
from the recombinant lambda-Zap phage using Ex-assist
helper phage and propagated in SOLR cells."
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GR_Bb0028C17.f GR_Eb Gossypium raimondii cDNA clone GR_Eb0028C17 5', mRNA sequence.
CO101616.1 GI:48800302
EST.
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                      Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids, eurosids I; Fabales, Fabaceae, Papilionoideae, Trifolieae,
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kukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Malvales; Malvaceae; Malvoideae; Gossypium.
                                                                                                         1 (bases 1 to 648)
Hahn, M.G., Ojanen-Reuhs, T., Samac, D., Town, C.D., Van Aken, S., Utterback, T., Cho, J. and Fraser, C.M.
ESTS from roots of Medicago truncatula treated with Oligogalacturonides of DP 6-20
Unpublished (2001)
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Kim, H., Yu, Y., Kudrna, D., Hatfield, J., Stum, D., Mueller, C.,
Udall, J.A., Rapp, R.A., Wendel, J.F., Rao, K., Soderlund, C. and
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More information is available at: www.medicago.org
Seq primer: (gtA AtA CgA CtC ACt AtA ggg C).
Location/Qualifiers
                                                                                                                                                                                                                                                           Complex Carbohydrate Research Center
University of Georgia
220 Riverbend Road, Athens, GA 30602-4712, USA
Tel: 706-542-4457
Fax: 706-542-4412
Email: hahn@ccrc.uga.edu

    .648
        / organism="Medicago truncatula"
/mol type="mRNA"
/culTivar="A17"

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Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomice Institute
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                                                                                                                                                                                                                                             Contact: Michael G. Hahn
  Medicago truncatula
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Matches 18; Conserv
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                                                                                      Medicago.
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AUTHORS
                                                                                                                                                                                                                    JOURNAL
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AUTHORS
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Triticum aestivum (bread wheat)

Triticum aestivum

Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;

Bukaryota; Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Pooideae; Triticeae; Triticum.

15. (baes 1 to 671)

16. Ogihara, Y. and Murai, K.

Expressed genes in Triticum aestivum

16. Unpublished (2002)

Contact: Tadasu Shin-i

Center For Genetic Resource Information

National Institute of Genetics

1111 Yata, Mishima, Shizuoka 411-8540, Japan

Tel: 81-559-81-6856

Fax: 81-559-81-6855

Fax: 81-559-81-6855
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                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Gossypium raimondii"
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The University of Arizona
Porbes Building Room 303, Tucson, AZ, 85721-0036, USA
Tel: 520 626 9595
Fax: 520 626 1259
Fax: bttp://genome.arizona.edu
Plate: 0028 row: C column: 17.
Location/Qualifiers
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Location/Qualifiers
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345 GGTGCATCGGAGCAGGGGG 364

Search completed: April 29, 2005, 11:55:09 Job time : 1881.14 secs

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Sequence 11388, A
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Sequence 17119, A
Sequence 17119, A
Sequence 7719, Ap
Sequence 7138, Ap
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11774, A
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                                                                       April 29, 2005, 05:17:55 ; Search time 58.5135 Seconds (without alignments) 559.282 Million cell updates/sec
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(cgn2_6/ptodata/1/ina/5A_COMB.seq:*

(cgn2_6/ptodata/1/ina/5B_COMB.seq:*

(cgn2_6/ptodata/1/ina/6B_COMB.seq:*

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(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
version 5.1.6
- 2005 Compugen Ltd.
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US-09-28-571-1388

US-09-58-571-2

US-09-949-016-11868

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US-09-949-016-11868

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US-09-949-016-1789

US-09-513-996C-3027

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US-09-949-016-12144

US-09-949-016-12180

US-09-949-016-12181

US-09-949-016-12181

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Sequence 11388, Application US/09270767

Patent No. 6703491

GENERAL INFORMATION:

APPLICANT: Homburger et al.

TITUE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster:

FILE REFERENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT FILING DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62517

SOFTWARE: PatentIN Ver. 2.0

SEQ ID NO 11388

LENGTH: 2255
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Patent No. 6703491
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT PILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 26956
LENGTH: 288
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Pred. No. 1.6e+02;
0; Mismatches 2; Indels
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US-09-949-016-12476
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US-09-252-991A-1592
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US-09-270-767-26956
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Best Local Similarity 89.5-
Then 17; Conservative
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Matches 17; Conservative
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US-09-270-767-11388
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26863 GGTTCATCCATGCAGGGG 26881
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US-09-949-016-12293
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THER INFORMATION: n = A,T,C or G
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Best Local Similarity 94.1%
....hes 16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Human
                                                US-09-949-016-12293
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                                                                                                        WS-09-248-571-2

WS-09-248-571-2

Sequence 2, Application US/09248571

SEPTICANT: GENERALIUP, MARIANNE

APPLICANT: GENERALIUP, MARIANNE

APPLICANT: GENERALICHALLA ASSEPA

APPLICANT: GENERALICHALLA ASSEPA

SEPTICANT: GENERALICHALION SCORPOSITIONS AND METHODS FOR INHIBITION OF MUC-5 MUCIN

TITLE OF INVENTION: GENE EXPRESSION

TITLE OF INVENTION: GENE EXPRESSION

TITLE OF INVENTION: GENE EXPRESSION

CURRENT FILING DATE: 1999-02-11

SEALIER APPLICATION NUMBER: 60/074,398

SARLIER FILING DATE: 1998-02-11

NUMBER OF SEQ 1D NOS: 22

NUMBER OF SEQ 1D NOS: 22

SOFTWARE: PatentIn Ver. 2.0
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Patent No. 6440672

GENERAL INFORMATION:

APPLICANT: BASBAUM, Carol

APPLICANT: BASBAUM, Carol

APPLICANT: GALLUP, Marianne

APPLICANT: GALLUP, Marianne

APPLICANT: GENERALICHAEL, Assefa

APPLICANT: GENERALICHAEL, Assefa

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-5

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-5

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-5

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-5

FILE REFERENCE: US-01-0308

CURRENT APPLICATION NUMBER: US-09-04-20

PRIOR FILING DATE: 1999-02-11

PRIOR FILING DATE: 1999-02-11

PRIOR FILING DATE: 1999-02-11

NUMBER OF SEQ ID NOS: 22

SOFTWARE: PATENTIN VET. 2.1
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Pred. No. 2e+02;
0; Mismatches 2; Indels 0
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110 GGTGCATCGGTGCAGTGGG 128
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Best Local Similarity 89.5%;
Matches 17; Conservative
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Best Local Similarity 89.5
Matches 17; Conservative
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CORGANISM: Homo sapiens
US-09-248-571-2
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US-09-553-736-2
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LENGTH: 3358
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Sequence 12293, Application US/09949016

Patent No. 681239

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
CURRENT FILING DATE: 2000-04-14

PRIOR PLILING DATE: 2000-10-20

PRIOR PLILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR PLILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 12293

END NO 12293
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Sequence 11868, Application US/09949016

TITLE NOTE VERIFIED OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,768

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 200012

SOUTHARE: PSELSEC for Windows Version 4.0

SEQ ID NO 11868

LENGTH: 300598
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US-09-94-016-17119/c

| Sequence 17119, Application US/09949016
| Patent No. Gel12339
| Patent No. Gel12339
| GENERAL INFORMATION:
| APPLICANT: VENTER, J. Craig et al.
| TITLE OF INVENTION: POLYNORPHISMS IN KNOWN GENES ASSOCIATED
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
| FILE REPERENCE: CL001307 |
| CURRENT PLILING DATE: 2000-04-14 |
| PRIOR APPLICATION NUMBER: 60/241,755 |
| PRIOR PELING DATE: 2000-10-20 |
| PRIOR PELING DATE: 2000-10-20 |
| PRIOR PELING DATE: 2000-09-08 |
| PRIOR FILING DATE: 2000-09-08 |
| PRIOR FILING DATE: 2000-09-08 |
| NUMBER OF SEQ ID NOS: 207012 |
| SOFTWARE: FeatSEQ for Windows Version 4.0 |
| LEWING DATE: 2000-09-08 |
| LEWING DATE: 2000-09-08 |
| SEQ ID NO 17119 |
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US-09-513-999C-3027/C

Sequence 3027, Application US/09513999C

REQUENCE 3027, Application US/09513999C

REQUENCE 3027, Application US/09513999C

REMERAL INFORMATION:

APPLICANT: Duclert, A.

APPLICANT: Glordano, J.Y.

TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.

PILE REFERENCE: 59.US2.REG

CURRENT APPLICATION NUMBER: US/09/513,999C

CURRENT FILING DATE: 2000-02-24

PRIOR APPLICATION NUMBER: US 60/122,487

PRIOR PILING DATE: 1999-02-26

NUMBER OF SEQ ID NOS: 36681
           Gaps
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           1; Indels
        0; Mismatches
                                                                                                                 268209 TGCATAGATGCAGGGGG 268193
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LOCATION: (1)...(308362)

CHER INFORMATION: n = A,T,C or G

US-09-949-016-17119
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        16; Conservative
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Matches 16; Conservative
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OTHER INFORMATION: s=g or
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ORGANISM: Homo sapiens
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LOCATION: 22
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LOCATION: 23..238
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ORGANISM: Human
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        Matches
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APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISBASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/231,768
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
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APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: PUTH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: 0200-04-14

PRIOR APPLICATION NUMBER: 60/241, 755

PRIOR APPLICATION NUMBER: 60/241, 756

PRIOR APPLICATION NUMBER: 60/237, 768

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-00-08

NUMBER OF SEC ID NOS: 207012
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94.1%; Pred. No. 4.8e+02;
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Patent No. 6812339
218203 TGCATAGATGCAGGGGG 218187
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LOCATION: (1)...(302604)
; OTHER INFORMATION: n = A,T,C or G
US-09-949-016-14588
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| LOCATION: (1)...(302604)
| OTHER INFORMATION: n = A,T,C or G
US-09-949-016-14589
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Best Local Similarity
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ORGANISM: Human
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ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 14588
LENGTH: 302604
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LENGTH: 302604
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Sequence 7259, Application US/09252991A

Sequence 7259, Application US/09252991A

Sequence 7259, Application US/09252991A

Setent No. 6551795

GENERAL INFORMATION:

TITLE OF INVENTION:

TITLE OF INVENTION:

TITLE OF INVENTION:

APPLICATION WHERE: US/09/252,991A

CURRENT APPLICATION WHERE: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-02-18

NUMBER OF SEQ ID NOS: 33142

LENGTH: 1794
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APPLICANT:
MATC J. Rubenfield et al.
APPLICANT:
MATC J. Rubenfield et al.
TITLE OF INVERNION:
NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVERNION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REPERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 7359
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                                                                                                                                                                                     Score 15.2; DB 4; Length 1584; Pred. No. 3.7e+02;
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; Sequence 7359, Application US/09252991A
; Patent No. 6551795
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-7359
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CRGANISM: Pseudomonas aeruginosa
US-09-252-991A-7259
                                                                                                   TYPE: DNA ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                        76.0%;
85.0%;
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 7138
LENGTH: 1584
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Best Local Similarity 85.0
Matches 17; Conservative
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Best Local Similarity 85.03
Matches 17; Conservative
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US-09-252-991A-7259/c
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APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILLE NEPERBENCE: 107196-136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR PLICATION NUMBER: US 60/094,190
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; Sequence 582. Application US/09471276
; Patent No. 6822072
; GENERAL INFORMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Duclert A.
; APPLICANT: Duclert A.
; TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
; TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
; TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
; Patent No. 6822072
; FILE REFERENCE: GENSET. 025CP1
; CURRENT APPLICATION NUMBER: US/09/471,276
; CURRENT APPLICATION NUMBER: 09/057,719
; EARLIER PILING DATE: 1999-04-09
; EARLIER PILING DATE: 1999-04-28
; EARLIER PILING DATE: 1999-04-28
; EARLIER PILING DATE: 1999-04-09
; NUMBER OF SEQ ID NOS: 1622
; SOFTHARE: Patent.pm
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Pred. No. 3.1e+02;
0; Mismatches 3; Indels (
                                                                                                                                                Length 239;
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Pred. No. 3.1e+02;
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; Sequence 7138, Application US/09252991A
; Patent No. 6551795
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85.0%;
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Best Local Similarity 85.0%;
Matches 17; Conservative (
                                                      ; LOCATION: 130
; OTHER INFORMATION: r=a or g
US-09-513-999C-3027
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Best Local Similarity 85.0<sup>3</sup>
Matches 17; Conservative
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NAME/KEY: CDS
LOCATION: 159..239
NAME/KEY: sig_peptide
LOCATION: 159..218
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                                       NAME/KEY: misc_feature
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US-09-471-276-582/c
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            FEATURE:
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Db 271 GGCCCAGCGATGCACGGGGG 290

RESULT 15

US-09-949-016-12144

Sequence 1244, Application US/09949016

Sequence 1244, Application US/09949016

Sequence 1244, Application US/09949016

Sequence 1244, Application US/09949016

SEMERAL INFORMATION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR PLILING DATE: 2000-10-03

TYPE: DNA

12144

OMEGANISM: Human

US-09-949-016-12144

OLGEY MAICH

BEST LOCAL SMILLATIVE WITHOUTH OF MEMBER OF MEMBER OF SCORE 15.2; DB 4; Length 471199;

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Search completed: April 29, 2005, 12:02:28 Job time : 61.6385 secs

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ORGANISM: Artificial Sequence
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| Cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-486-755-22
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US-10-486-755-23
US-10-865-245-70
US-09-874-991C-541
US-09-874-991C-521
US-09-874-991C-523
US-10-486-755-30
US-10-486-755-30
US-10-486-755-31
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US-10-068-160-21
US-10-068-160-30
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OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR US-09-874-991C-494

Sequence 494, Application US/09874991C

Publication No. US20040052763A1

GENERAL INFORMATION:

APPLICANT: MOND, JAMES J.

APPLICANT: FLORA, MICHAEL

APPLICANT: FLORA, MICHAEL

APPLICANT: TLINAM, DENNIS M.

TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES

FILE REPERENCE: 07787-0042
CURRENT APPLICATION NUMBER: US/09/874,991C

CURRENT FILING DATE: 2001-06-07

PRIOR PILIAGICATION NUMBER: 60/209,797

PRIOR PILIAGICATION NUMBER: 2000-06-07

NUMBER OF SEQ ID NOS: 620

SOFTWARE: PATENETH VET. 2.1

ERNGTH: 20 ö Length 20; Indels ; 0 Query Match
100.0%; Score 20; DB 11;
Best Local Similarity 100.0%; Pred. No. 3.7;
Matches 20; Conservative 0; Mismatches 0;

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US-09-874-991C-505
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Publication No. US20040052763A1

GENERAL INFORMATION:

APPLICANT: MOND, JAMES J.

APPLICANT: MOND, JAMES J.

APPLICANT: MOND, JAMES J.

TITE OF INVENTION: IMMUNOSTIMILATORY RNA/DNA HYBRID MOLECULES

FILE REFERENCE: 07087 - 0042-0

CURRENT FILING DATE: 2001-06-07

PRIOR PILING DATE: 2000-06-07

PRIOR FILING DATE: 2000-06-07

NUMBER OF SEQ ID NOS: 620

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 538

LENGTH: 20
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                                                                                 APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: U509/874,991C
CURRENT FILING DATE: 2001-66-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR APPLICATION NUMBER: 60/209,797
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN Ver. 2.1
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100.0%; Pred. No. 3...
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Sequence 505, Application US/09874991C Publication No. US20040052763A1 GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.0
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Best Local Similarity 100.0
Matches 20; Conservative
                                                                 APPLICANT: MOND, JAMES J.
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LENGTH: 20
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: THE GOVERNMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINAM, Dennis
APPLICANT: KLINAM, Dennis
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: USRTHELYI, Daniela
TITLE OF INVENTION: OLIGOBOXXNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
TILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT APPLICATION NUMBER: 60/128,898
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR PILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
LENGTH: 20
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-64199
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR PLILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
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APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: USETHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Oligonucleotide US-10-068-160-54
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Best Local Similarity
Matches 20; Conserv
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: THE GOVERNMENT OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: SLINMAN, Dennis
APPLICANT: ISHII, Ken
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-43317
CURRENT PAPLICATION NUMBER: US/10/194,035
CURRENT PAPLICATION NUMBER: US/10/192
PRIOR PAPLICATION NUMBER: US/10/10/112
PRIOR PILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 38
LENTH: 20
        TITLE OF INVENTION: OLIGODEOXYNUCLECTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-38
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US-10-194-035-37
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                                                             PRIOR APPLICATION NUMBER: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/USO1/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PLING DATE: 2001-07-19
PRIOR PLING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 37
LENGTH: 20
                                    FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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Publication No. US20030144229A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4219-63117
CURRENT APPLICATION VUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
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Publication No. US20030144229A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KINNAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: KLINMAN, Dennis
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US-10-194-035-32
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US-10-194-035-34
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Pred. No. 3.7;
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100.0%; Score 20; DE
Best Local Similarity 100.0%; Pred. No. 3.7
Matches 20; Conservative 0; Mismatches
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR PLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR PLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PALCHIN Ver. 2.1
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PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PatentIn Ver: 2.1
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LENGTH: 20
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APPLICANT:
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JAPLICANT: SHIN, Ken

APPLICANT: ISHIN, Ken

APPLICANT: ISHIN, Ken

TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE

TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE

TITLE OF INVENTION NUMBER: US/10/194,035

CURRENT FILING DATE: 2002-07-12

PRIOR FILING DATE: 2001-07-19

PRIOR FILING DATE: 2000-01-14

NUMBER OF SEQ ID NOS: 119

SEQ ID NO 72

SEQ ID NO 72
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REPERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SEQ ID NO 43
LENGTH: 20
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Publication No. US20040105872A1
GENERAL INFORMATION:
APPLICANT: The Government of the United States of America, as represented by the APPLICANT: Secretary of the Department of Health and Human Services
APPLICANT: Klinman, Dennis M.
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US-10-194-035-43
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-72
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Pred. No. 3.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
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Publication No. US20030144229A1
GENERAL INFORMATION:
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Best Local Similarity 100.0%;
Matches 20; Conservative 0
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Best Local Similarity 100.
Matches 20; Conservative
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US-10-666-022-176
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PREVENTING INFECTIONS IN IMMUNOCOMPROMISE)
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Publication No. US20040105872A1

GENERAL INFORMATION:

APPLICANT: The Government of the United States of America, as represented by the APPLICANT: Rinman, Dennis M.

APPLICANT: Klinman, Dennis M.

APPLICANT: Klinman, Dennis M.

APPLICANT: Klinman, Dennis M.

APPLICANT: Serretary of the Department of Health and Human Services

APPLICANT: Wetchely, Daniela

1TILE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG

TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG

CURRENT PERFERENCE: 4229-66899

CURRENT PILING DATE: 2003-09-17

PRIOR FPLING DATE: 2003-09-17

PRIOR FPLING DATE: 2002-09-18

NUMBER OF SEQ ID NOS: 181

SOFTWARE: PATENTIN VERSION 3.1
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TITLE OF INVENTION: METHOD OF TREATING AND PREVENTING INFECT.
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
FILE REPERENCE: 4239-66899
CURRENT APPLICATION NUMBER: US/10/666,022
CURRENT FILING DATE: 2003-09-17
PRIOR APPLICATION NUMBER: US 60/411,944
PRIOR FILING DATE: 2002-09-18
NUMBER OF SEQ ID NOS: 181
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 176
LIGHTH: 20
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100.0%; Pred. No. 3.7;
iive 0; Mismatches 0;
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ORGANISM: Artificial Sequence
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Nakano, Eileen
Leung, Julia
Humphreys, Tom
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TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST FLAVIVIRUS
TITLE OF INVENTION: INFECTION
FILE REPERENCE: 247332001100
CURRENT APPLICATION NUMBER: US/10/730,776
CURRENT PILING DATE: 2003-12-08
RIOR APPLICATION NUMBER: 60/432,865
PRIOR FILING DATE: 2003-12-11
PRIOR FILING DATE: 2003-12-11
PRIOR FILING DATE: 2003-08-06
NUMBER: OF SEQ ID NOS: 16
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 6
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:

APPLICANT: Lieberman, Michael
APPLICANT: Clements, David
APPLICANT: Clements, David
APPLICANT: Nakano, Eileen
APPLICANT: Nakano, Eileen
APPLICANT: Leung, Julia
APPLICANT: Humphreys, Tom
ITILE OF INVENTION: INFECTION
FILE REFERENCE: 247332001100
CURRENT APPLICATION NUMBER: 60/132,865
PRIOR APPLICATION NUMBER: 60/432,865
PRIOR APPLICATION NUMBER: 60/432,865
PRIOR APPLICATION NUMBER: 60/432,865
NUMBER OF SEQ ID NOS: 16
SOFTWARE: RESCEE FOR WINDOWS VERSION 4.0
SEQ ID NOS: 16
LENGTH: 20
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100.0%; Score 20; DB 18; Length 20;
Best Local Similarity 100.0%; Pred. No. 3.7;
Matches 20; Conservative 0; Mismatches 0; Indels
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; OTHER INFORMATION: oligodeoxyribonucleotide
US-10-730-776-7
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ORGANISM: Artificial Sequence
FEATURE:
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ORGANISM: Artificial Sequence
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Search completed: April 29, 2005, 12:35:40 Job time : 270.243 Becs

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AX19422 Sequence
AX465372 Sequence
AX665372 Sequence
AX665373 Actinopla
AC031316 Sus scrof
AC012295 Mus muscu
AC148310 Pan trogl
                                                                                                       AL592465 Mouse DNA AC131745 Mus muscu AE001002 Archaeogl AL359076 Human DNA AX194432 Sequence AX19443 Sequence AX194443 Sequence AX194445 Sequence AX1944504 Sequence AX194504 Sequence AX152198 Sequence AX352198 Sequence
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AL592465 Mouse DNA
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Oligodeoxymucleotide and its use to induce an immune response
Patent: WO 0151500-A 42 19-JUL-2001;
Secretary Of the Department of Health and Human Services (US)
Location/Qualifiers
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Best Local Similarity 100.0%; Pred. No. 1.5e+02;
Matches 20; Conservative 0; Mismatches 0; Indels
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/noTe="Synthetic DNA"
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Sequence 42 from Patent WO0151500.
AX194442
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AC148310
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AC091316
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AX352200
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                                                              April 29, 2005, 04:31:54 ; Search time 791.351 Seconds (without alignments) 1224.620 Million cell updates/sec.
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Maximum Match 100%
Listing first 45 summaries
                                              - nucleic search, using sw model
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                                                             100.0%; Score 20; DB 6; Length 20; 100.0%; Pred. No. 1.5e+02; ive 0; Mismatches 0; Indels
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 540 13-DEC-2001,
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 514 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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other sequences; artificial sequences.
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Sequence 514 from Patent WO0193902.
AX352218
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Sequence 540 from Patent WO0193902.
AX352244
/db_xref="taxon:32630"
/note="Synthetic HDR"
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AX352244
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                                Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 496 13-DEC-2001;
Biosynexus Incorporated (US)
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 507 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Patent: WO 0193902-A 504 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Best Local Similarity 100.0%; Pred. No. 1.5e+02;
Matches 20; Conservative 0; Mismatches 0;
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    forganism="synthetic construct"
|mol type="unassigned DNA"
|db_xref="taxon:32630"

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/mol_type="unassigned DNA"
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/mol_type="unassigned DNA"
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                 Mond, J.J., Flora, M. and Klinman, D.M.
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Sequence 507 from Patent WO0193902.
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 525 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 529 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
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100.0%; Pred. No. 1.4e+02;
tive 0; Mismatches 0;
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100.0%; Pred. No. 1.4e+02;
tive 0; Mismatches 0;
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xrefe"t=axon:32630"
/noTe="Synthetic HDR"
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/noTe="Synthetic HDR"
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Sequence 529 from Patent WO0193902.
AX352233
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Sequence 537 from Patent WO0193902.
AX352241
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                    AX352229.1 GI:18617512
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Patent: WO 0211761-A 60 14-FEB-2002;
PERRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Patent: WO 0193902-A 517 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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/noTe="Synthetic oligonucleotide"
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db xref="texon:32630"
/noTe="Synthetic HDR"
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100.0%; Score 20; DB
Best Local Similarity 100.0%; Pred. No. 1.40
Matches 20; Conservative 0; Mismatches
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Sequence 517 from Patent WO0193902.
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Sequence 525 from Patent WO0193902.
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Sequence 60 from Patent W00211761.
AX465392
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 495 13-DEC-2001;
Biosynexus Incorporated (US)
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 499 13-DEC-2001;
Biogynexus Incorporated (US)
Location/Qualifiers
             92.0%; Score 18.4; DB 6; 95.0%; Pred. No. 8.6e+02; live 0; Mismatches 1;
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Patent: WO 0193902-A 537 13-DEC-2001;
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Sequence 101 from Patent WO0151500.
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SUMMARIES	Description	Aac80622 Immunogen	Aas09592 Immunorea	Н	Н	Abl35581 Immunosti	Abl35570 Immunosti	Abl35588 Immunosti	Abk46470 Immunosti	Acc48296 CpG oligo	Acc48313 CpG oligo	Acc83118 D_class C	Acc83152 D class O	Add01049 CpG D oli	Adn97044 Immunosti	Abl35599 Immunosti	Abl35603 Immunosti	Abl35591 Immunosti	Abl35611 Immunosti	Ab135622 Immunosti	Aas09651 Immunorea
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WO200151500-A1.

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The invention relates to novel immunogenic CpG oligodeoxynucleotides CAACGO581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5-NNNY-CpG-WNNN-3' or 5-RY-CpG-RY -3'. The central CpG meutif is unmethylated, and the oligonucleotides optionally have phosphorotchicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce a threat a cell-mediated response, and those of the sequence 5'-NNYT-CpG-WNNN-3' colligonucleotides are able to induce a mucral response, and those of the sequence 5'-NNYT-CpG-WNNN-3' being able to induce a mucral response and dendritic cells, which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or induction of natural killer (NK) cells. A cell-mediated or induction of natural satisfaction of T- or B-cells. The chuncral response can then occur by activation of T- or B-cells. The chuncral response can then occur by activation of T- or B-cells. The chuncral response is useful for treated in compliantion with an anti-allergatic agent or anti-infectious agent. Cr conditions, and the infections which may be treated include eczema, allergic conditions which may be treated include erzema, allergic conditions which may be treated include event, and conditions, and protozoal infections encounts of the allergic conditions which may be treated include event, and conditions, and protozoal infections exponse induction may also be captured with immune system deficiency, and symbolic may also be cused in the infections which may be treated include events. The allergic conditions which may be treated include events of the elements of an agent of an inclument of an agent of an incombine response is used in an agent of biological warfare. An immunogenic CpG elements is useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention
Claim 4; Page 30; 46pp; English.
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                                                        Gaps
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                          100.0%; Score 20; DB 4; Length 20;
                                                      0; Indels
Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                      100.0%; Preu. ...
ive 0; Mismatches
                                                                                   1 GGTGCACCGGTGCAGGGGG 20
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                                      Best Local Similarity 100.
Matches 20; Conservative
                            Query Match
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; Interleukin-6 production; bit-erapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                           Immunoreactive CpG sequence-containing oligonucleotide #42.
                                          AAS09592 standard; DNA; 20 BP
                                                                                                                                 26-SEP-2001 (first entry)
                                                                                    AAS09592;
RESULT 2
                  AAS09592
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Synthetic.

Synthetic.

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AASO9551-AASO9662 represent oligodeoxymucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The CpG sequences is different from another of the multiple CpG sequences. The CpM are useful for inducing an immune response, preferably a cell-cpm compared involving an electron of ammune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma. Cc treating, preventing or ameliorating an allergic reaction, e.g. asthman. Cc ancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is induction of immune response improves the efficacy of a vaccine and is coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and cmalaria, for treating immune system deficiencies, e.g. lupus corrections including Pranciscia arthritis and cmiltiple sclerosis, infections including Pranciscial, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Boola, and historia
                                                                                                                                                                                                                                                                                                              Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacic; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
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                                                                                                                                                                              (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                           Verthelyi D;
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                                                                                                                                    14-JAN-2000; 2000US-0176115P.
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                                                                                                                                                                                                                                                                      WPI; 2001-442129/47.
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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytckines. It can be useful for enhancing an immune response treating diseases, including pathogenic infection, (non-)malignant trumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                     New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
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                /*tag= a
/note= "optionally thymidine is replaced by uracil t
form RNA or DNA/RNA hybrids. Thymidine is linked to
least one other base through a ribose sugar"
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nes 20; Conservative
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Matches
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                                                             /*tag= a
/note="optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or
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ABL35578;

Key

ABL35578

RESULT 4

Query Match Matches

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Gaps

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least one other base through a ribose sugar"
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                                                                                                                                                                                                                                   inducing
 /note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
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/note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                      oligonucleotides, useful for enhancing an immune response or inducin
cytokines, particularly for treating diseases, e.g. cancer, allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                          compositions comprising RNA/DNA hybrid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 20; DB 6; Length 20; 100.0%; Pred. No. 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunostimulatory oligorucleotide SEQ ID NO: 496.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                      Example 11; Page 61; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
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                                                                                                                                                                          Klinman DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GGTGCACCGGTGCAGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGCACCGGTGCAGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL35570 standard; DNA; 20 BP
                                                                                                    07-JUN-2001; 2001WO-US018276.
                                                                                                                           07-JUN-2000; 2000US-0209797P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20; Conservative
                                                                                                                                                   (BIOS-) BIOSYNEXUS INC.
                                                                                                                                                                                                                           New immunostimulatory
                                                                                                                                                                                                   WPI; 2002-130570/17.
                                                                                                                                                                          Flora M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                   WO200193902-A2
                                                                                                                                                                                                                                                               HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the invention
                                                                          13-DEC-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABL35570;
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                                                                                                                                                                           Mond JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytchines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                       inducing
allergy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA/RNA hybrid; phosphorothicate backbone; immunostimulatory; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                oligonucleotides, useful for enhancing an immune response or inducir
cytokines, particularly for treating diseases, e.g. cancer, allergy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                               immunostimulatory compositions comprising RNA/DNA hybrid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 20; DB
Pred. No. 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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Mond JJ, Flora M, Klinman DM;
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The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides (ODNs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; ostatic; immunostimulant; gene therapy; ss.
                                                                                                    Vaccine for immunizing patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG oligodeoxynucleotide D29 used for dendritic cell maturation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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/mod_base= OTHER
                    Klinman DM;
                                                                                                                                                                                    Claim 4; Page 8; 30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note= "OTHER=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACC48296 standard; DNA; 20 BP
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Best Local Similarity 100.
Matches 20; Conservative
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/*tag=
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                      Prince G,
                                                            WPI; 2002-227118/28
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modified_base
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    the vaccine
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                      Mond JJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             comprises at least one oligonation is useful for enhancing both an RNA region and or inducing cytokines. It can be used as a vaccina adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or conon, or carcinomas and sarcomash, autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme diseases, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or amalioranting the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to an immunostimulatory composition, which
                                                                                                                                                                                                                                                                                             New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; reepiratory syncytial virue; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunostimulatory unmethylated CpG oligodideoxynucleotide #60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 20; DB 6; Length 20; llarity 100.0%; Pred. No. 29; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
                                                                                                                                                                                                                                                                                                                                                                                                        Example 11; Page 61; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GGTGCACCGGTGCAGGGGG 20
                                                                                                                                                                                                               Klinman DM;
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                                                                                  37-JUN-2001; 2001WO-US018276.
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01-SEP-2000; 2000US-0229307P.
                                                                                                                          07-JUN-2000; 2000US-0209797P
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                                                                                                                                                                  (BIOS-) BIOSYNEXUS INC
                                                                                                                                                                                                                                                     WPI; 2002-130570/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 20; Conserv
                                                                                                                                                                                                             Flora M,
WO200193902-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200211761-A2.
                                                                                                                                                                                                                                                                                                                                                                HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the invention
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                                                                                                                                                                                                               Mond JJ,
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RESULT 8 ABK46470

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Gaps

and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature dendritic cells may also be used to produce activated T lymphocytes

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

100.08;

100.0%;

20; Conservative

Local Similarity

Query Match Matches

S X C C C

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Gaps

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0; Indels

0; Mismatches Score 20; Pred. No.

20

BP.

ACC83118 standard; DNA; 20

RESULT 11

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ACC8311

1 GGTGCACCGGTGCAGGGGG 20 1 GGTGCACCGGTGCAGGGGGG

DB 8; Length 20; 29;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CpG oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine;
                                                                                                                    cell.
Generating mature dendritic cells for tumor immunotherapy or as vaccines for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type oligodeoxynucleotide.
                                                                                                  The present sequence is that of D type CpG oligodeoxynucleotide D29, which is used in a claimed method for generating a mature dendritic cell. The method involves contacting a dendritic cell precursor, especially a monocyte, with the oligonucleotide. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for tumour immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature
                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                   activate the immune system to treat diseases such as cancer. Mature dendritic cells may also be used to produce activated T lymphocytes
                                                                                                                                                                                                                                                                                                                         .
0
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                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytostatic; immunostimulant; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                          Claim 11; Page 44; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                  1 GGTGCACCGGTGCAGGGGG 20
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                                                                                                                                                                                                                                                                                             100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP.
                                                                                                                                                                                                                                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0
Matches 20, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CpG oligodeoxynucleotide
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D class CpG ODN sequence useful for encapsulating in SSCL, DV29.

(first entry)

27-AUG-2003

ACC83118;

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The invention relates to sterically stabilised cationic liposomes (SSCL) which comprises a cationic lipid, a co-lipid stabilishing agent and encapsulating a K type oligodeoxynucleotide (ODN) including a CDG motif. The invention is useful in pharmaceutical composition for impairing growth of a solid tumour cell (e.g. human tumour cell) bearing an immune response, which is expression of a cytokine (e.g. interferon gamma), particularly immunotherapeutic response against tumours or stimulating an in vivo or minune cell, and for inducing an immune response against an infectious agent e.g. virus, bacteria and fungus. It is also useful for a phivering oligodeoxynucleotides including a CDG motif in clinical caplications if or treating infectious diseases (e.g. tularemia, malaria, francisella, schistosomiasis, tuberculosis and leishmaniasis), cancer (e.g. solid tumours, AIDS-associated Kaposi's tumour, thyroid cancer cetc, allergy (e.g. eccema, allergic rhinitis or coryza, hay fever, bronchial or allergic asthma, unticaria, food allergies), autoimmune diseases (e.g. diabetes, rheumatoid arthritis, lupus erythematosus and
                                                                                                                                              Sterically stabilised cationic liposome; SSCL; ODN; oligodeoxynucleotide; tuberculosis; oytokine; leishmaniasis; AlDS-associated Kaposi's tumour; thyroid; cancer; allergy; eczema; allergic rhinitis; coryza; hay fever; schistosomiasis; interferon gamma; lupus erythematosus; antimicrobial; schistosomiasis; interferon gamma; lupus erythematosus; antimicrobial; CpG motif; interleukin-13; cytostatic; tularemia; rheumatoid arthritis; multiple sclerosis; infection; tumour; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cationic liposome composition for delivering oligodeoxynucleotides including a CpG motif in clinical applications, comprises a cationic lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Joshi BH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĸ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kawakami
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ishii KJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-JUL-2001; 2001US-0308283P.
25-JUL-2002; 2002US-00206407.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JUL-2002; 2002WO-US024235.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gursel I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-482260/45.
                                                                                                                                                                                                                                                                                                                                                                    WO2003040308-A2
                                                                                                                                                                                                                                                                                                                           Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Klinman DM,
                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-2003.
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The present sequence is that of a CpG oligodeoxynucleotide of the invention. A claimed method for generating dendritic cells involves contacting a dendritic cell precursor, especially a monocyte, with a D type oligodeoxynucleotide (see ACC48294) containing a central unmethylated CpG motif. The method is useful for generating mature pendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine,

Generating mature dendritic cells for tumor immunotherapy or as vaccines

(USSH) US DEPT HEALTH & HUMAN SERVICES.

13-AUG-2002; 2002WO-US025732 14-AUG-2001; 2001US-0312190P Verthelyi D;

Gursel M,

Klinman DM,

WPI; 2003-300874/29

comprises contacting a dendritic cell precursor with a D type oligodeoxynucleotide.

Disclosure; Page 61; 69pp; English.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         which comprises a cationic light, a co-lipid, stabilishing agent and encapsulating a K type oligodeoxymucleotide (ONN) including a CyG motif. The invention is useful in pharmaceutical composition for impairing growth of a solid tumour cell (e.g. human tumour cell) bearing an interleukin-13 receptor in a subject; for stimulating an immune response, which is expression of a cytokine (e.g. interferon gamma), particularly immunotherapeutic response against tumours or stimulating an in vivo or an in vitro immune cell, and for inducing an immune response against an infectious agent e.g. virus, bacteria and fungus. It is also useful for delivering oligodeoxynucleotides including a CyG motif in clinical applications; for treating infectious diseases (e.g. tularemia, malaria,
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sterically stabilised cationic liposome; SSCL; ODN; oligodeoxynucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cationic liposome composition for delivering oligodeoxynucleotides including a CpG motif in clinical applications, comprises a cationic lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.
multiple sclerosis) and psoriasis. The present sequence is a D class CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     tuberculogis, cytokine, leishmaniasis, AIDS-associated Kaposi's tumour, thyroid, cancer; allergy, eczema, allergic rhinitis, coryza, hay fever, schistosomiasis, interferon gamma, lupus erythematosus, antimicrobial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to sterically stabilised cationic liposomes (SSCL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        asthma; urticaria; autoimmune disease; diabétes; rheumatoid arthritis; CpG motif; interleukin-13; cytostatic; tularemia; malaria; psoriasis; multiple sclerosis; infection; tumour; phosphorothioate backbone; ss.
                                                                                                                             Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RK;
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                                                                                                                                                                                                                                                                                                                                                                                                 D class ODN sequence useful for encapsulating in SSCL, D29.
                                                                                       9; Length 20;
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                                                                                                                         0; Indels
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                                                    Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                  ODN potentially useful for encapsulating in SSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kawakami K,
                                                                                       Score 20; DB s
Pred. No. 29;
); Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 8; Page 52; 110pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ishii KJ,
                                                                                                                                                             1 GGTGCACCGGTGCAGGGGGG 20
                                                                                                                                                                                 base= OTHER
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                                                                                       100.08;
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                                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                        ACC83152 standard; DNA; 20
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                                                                                                        Best Local Similarity 100.
Matches 20; Conservative
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modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unidentified
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                                                                                                                                                                                                                                                                                                                            ACC83152;
                                                                                      Query Match
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The present invention describes a method for inducing the production of vascular endothelial growth factor (VEGF) by a cell comprising contacting the cell with a CPG oligonucleotide and therefore inducing the production of VEGF by the cell. Also described: (1) inducing neovascularisation in a tissue, comprising introducing a CPG oligonucleotide into an area of the tissue, newhere the formation of new blood vessels is desired, and so inducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an area of the subject where angiogenesis is desired, omprising introducing a CPG oligonucleotide to the area, and so comprising introducing a CPG oligonucleotide to the area, and so comprising introducing a CPG oligonucleotide to the angiogenesis in the subject; and (3) screening for an agent that inhibits neovascularisation, comprisation administering the agent to the mammal, where inhibition of angiogenesis in the animal indicates that the mammal, where inhibiting neovascularisation. The CPG agent is effective in inhibiting neovascularisation. The CPG oligonucleotides have vulnerary, vasotropic and antiarteriosclerotic activities, and can be used in gene therapy. The method and the CPG
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francisella, schistosomiasis, tuberculosis and leishmaniasis), cancer (e.g. solid tumours, AIDS-associated Kapossi's tumour, thyroid cancer etc), allergy (e.g. eczema, allergic rhinitis or coryza, hay fever, bronchial or allergic asthma, urticaria, food allergies), autoimmune diseases (e.g. diabetes, rheumatoid arthritis, lupus erythematosus and multiple sclerosis) and psoriasis. The present sequence is a D class ODN potentially useful for encapsulating in SSCL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Inducing the production of vascular endothelial growth factor by a cell, useful for inducing angiogenesis, comprises contacting the cell with a CpG oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vascular endothelial growth factor; VEGF; CpG oligonucleotide;
neovascularisation; angiogenesis; vulnerary; vasotropic;
antiarteriosclerotic; gene therapy; skin graft; male pattern baldness;
atherosclerosis; ischaemia; ss.
                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                DB 9; Length 20;
29;
                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                        Seguence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                  100.0%; Score 20; 100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                       1 GGTGCACCGGTGCAGGGGG 20
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(USSH ) US DEPT HEALTH & HUMAN
                                                                                                                                                                                                                                                                                                                                      GGTGCACCGGTGCAGGGGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADD01049 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                      Similarity 100.
20; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-559138/52
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                                                                                                                                                                                                                  Query Match
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viructue; anti-infjammatory; hepatotropic; ceteblicitive;
w tuberculostatic; anti-infjammatory; hepatotropic; cytostatic;
w tuberculostatic; anti-infjammatory; hepatotropic; cytostatic;
w tematological; bacterial growth inhibitor; immunostimulator;
immune response; immunostimulatory; opportunistic infection;
w lentivirus infection; human immunodeficiency virus infection;
wiral infection; protozoan infection; fungal infection;
w viral infection; protozoan infection; prion disease; nucleoplasm;
w almonallosis; syphilis; neurosyphilis; tuberculosis;
cocidioidomycosis;
w apopriasis; appengiliosis; candidiasis; coccidioidomycosis;
w isosporiasis; microsporidiosis; pneumocystis carinii pneumonis;
w toxoplasmosis; uctomegalovirus; hepatitis; herpes simplex; herpes zoster;
w unman papillomavirus; molluscum contagiosum; oral hairy leukoplakis;
progressive multifocal leukoencephalopathy; neoplasm; Kaposi s sarcoma;
w systemic non-Hodgkin's lymphoma; primary central nervous system lymphoma;
w mmunostimulatory CpG oligonucleotide; ss.
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oligonucleotides can be used in inducing angiogenesis or neovascularisation, such as in subjects with a skin graft, subjects who exhibit male pattern baldness, or subjects who have a wound or who have atherosclerosis or ischemia. The method may also be used in screening for agents that inhibit neovascularisation. The present sequence represents a CPG oligonucleotide which is used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes a method of increasing an immune response to opportunistic infection in an immunocompromised subject involves administering an immunostimulatory D oligodeoxynucleotide or an
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Increasing an immune response to an opportunistic infection e.g. bacterial infections in an immunocompromised subject involves administering immunostimmlatory D oligodeoxynucleotide or an immunostimmlatory K oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          virucide; anti-HIV; antibacterial; fungicide; cerebroprotective;
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                                                                                                                                                                                                   DB 10; Length 20;
29;
                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                  Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                  0; Mismatches
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                                                                                                                                                                                                            Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                        1 GGTGCACCGGTGCAGGGGG 20
                                                                                                                                                                                                                                                                                                                                GGTGCACCGGTGCAGGGGGG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                   ADN97044 standard; DNA; 20 BP
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                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 20; Conservative
                                                                                                               represents a CpG oligo:
the present invention.
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                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
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cc immunostimulatory K oligodeoxynuclectide, where an antigenic epitope of a polypeptide is not administered to the subject. The method is useful for increasing an immune response to an opportunistic infection e.g. infection with a lentivirus such as human immunodeficiency virus (including HIV-1, HIV-2) e.g. AIDS; infection with Leishmania; bacterial infections; fungal infections; viral infections; protozoan infections; prion disease; and nucleoplasm in an immunocompromised subject or a subject infected with a lentivirus. The bacterial infections include subject infected with a lentivirus. The bacterial infections include cappergillosis, syphilis and neurosyphilis, tuberculosis and bacillary considenceds, the fungal infections include cryptosporialism, increased infections include cryptosporidiosis, concidiodomycosis, cryptococcal metringitis, hepatitis B, and toxoplasmosis, the protozoal infections include cryptosporidiosis, neumocystis carini; pneumonia and toxoplasmosis, viral hirry leukoplakis, neumocystis carini; pneumonia and contagiosum, oral hairy leukoplakia and progressive multifocal contagiosum, varal hairy leukoplasms include Kaposi's sarcoma, system contagiosum, caral hairy leukoplasms include Kaposi's sarcoma, system includes HSV, genital herpes Toster includes GC Hodgkin's lymphoma and primary central nervous system lymphoma. The horpes simplex includes HSV, genital herpes Toster includes GC and cervical cancer. The method stimulates immune responses to any opportunistic infection in immunocompromised subjects. This sequence that cervical inference multiple from a membral contagned and primary from the primary central mervous system and primary central nervous system includes from a membral primary central nervous system includes from and primary central nervous contagned and primary central nervous system proponses to any 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              stimulate the release of cytokines from cells of the immune system and can be used to increase immune response in the method of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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WPI; 2002-130570/17.

New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.

Example 11; Page 61; 68pp; English.

The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines; It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant treating diseases, including pathogenic infection, (non-)malignant colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of the invention

Sequence 28 BP; 10 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

0; Gaps Score 20; DB 6; Length 28; Pred. No. 29;); Mismatches 0; Indels 100.0%; Sc 100.0%; Pr tive 0; Query Match
Best Local Similarity 100.8
Matches 20, Conservative

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Search completed: April 29, 2005, 06:25:59 Job time : 203.919 secs

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AGENCOURT BJ252893

AJ684878 L CE284352 A AJ5252893 B BJ5252893 B BB973745 G CA100132 A CA100132 A CA10132 B CA1012 B BA1012 B BA1012 B BA1012 B

170006874

Run on:

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CB076094 1379 bp mRNA linear EST 24-JAN-2003 hf37c06.gl Hedyotis terminalis flower - Stage 2 (NYBG) Hedyotis terminalis cDNA clone hf37c06, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids; lamiids; Gentianales; Rubiaceae; Rubioideae; Spermacoceae; Hedyotis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 339)
Levesque, M.P., Twigg, R.W., Motley, T., Katari, M.S., Dedhia, N.N.,
O'Shaughnessy, A.L., Balija, V., Martienssen, R.A., McCombie, R.W.,
Benfey, P. and Stevenson, D.
Expressed tag sequences from Hedyotis terminalis flower - Stage 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /dev_stage="pre-anthesis; Stage 2"
/clone lib="Hedyotis terminalis flower - Stage 2 (NYBG)"
/note="Organ: flower; Vector: pBK-CMV; Site_1: XhOI;
Site_2: Eco RI; Date: Completed 12/18/01. Submitted to
CSHL 12/21/01 Library: Stratagene ZAP Express CDNA
Synthesis Kit. The library was slaze-fractionated to enric
for large inserts. Sample: collected on the island of
Hawaii, Hawaii; NYBG herbarium voucher TM2562"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: W. Richard McCombie
Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8884
Fax: 516 367 8884
Email: mccombie@cshl.org
Email: mccombie@cshl.org
Plate: hf37 row: c column: 06
Seq primer: -21M13Univeev
High quality sequence stop: 339.

    .339
    /organism="Hedyotis terminalis"

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CE284352
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CA100132
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CN788545
BJ229325
CO691720
BH886902
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Hedyotis terminalis
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RESULT 1
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                                                                       April 29, 2005, 05:15:22 ; Search time 1875.14 Seconds (without alignments) 405.990 Million cell updates/sec
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CB08724
CB087525
CG271799
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          GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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CC1466773
BQ898390
AV39317
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1 (bases 1 to 598)
Levesque, M.P., Twigg, R.W., Motley, T., Katari, M.S., Dedhia, N.N.,
O'Shaughnessy, A.L., Balija, V., Martienssen, R.A., McCombie, R.W.,
Benfey, P. and Stevenson, D.
Expressed tag sequences from Hedyotis centranthoides flower - Stage
2 (NYBG)
            Hedyocis centranthoides
Hedyotis centranthoides
Hedyotis centranthoides
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
asterids; lamids; Gentianales; Rubiaceae; Rubioideae;
Spermacoceae; Hedyotis.
1 (bases 1 to 509)
Levesque,M.P., Twigg,R.W., Motley,T., Katari,M.S., Dedhia,N.N.,
Bohaughnessy,A.L., Balija,V., Martienssen,R.A., McCombie,R.W.,
Benfey,P. and Stevenson,D.
Expressed tag sequences from Hedyotis centranthoides flower - Stage
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(NYBG)"
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Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8884
Fax: 516 367 8874
Email: mccombie@cshl.org
Plate: hj97 row: e column: 04
Seq primer: -21M13UnivRev
High quality sequence stop: 509.
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Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Hedyotis centranthoides"
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CB087525.1 GI:27911717
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1 (bases 1 to 440)
Levesque,M.D., Twigg,R.W., Motley,T., Katari,M.S., Dedhia,N.N.,
Levesque,M.D., Balija,V., Martienssen,R.A., McCombie,R.W.,
Benfey,P. and Stevenson,D.
Expressed tag sequences from Hedyotis centranthoides flower - Stage
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                                                                                                                                                                                                                                                                  CB087291 Hedyotis centranthoides flower - Stage 2 (NYBG) Hedyotis centranthoides flower - Stage 2 (NYBG) Hedyotis centranthoides cDNA clone hj98911, mRNA sequence.
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Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots;
asterids, lamiids, Gentianales, Rubiaceae, Rubioideae;
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/clone_lib="Hedyotis centranthoides flower - Stage 2
(NYBG)"
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     Length 339;
                                                    1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (2003)
Contact: W. Richard McCombie
Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8894
Fax: 516 367 8894
Fax: 516 367 8894
Fax: 516 367 8874
Email: mccombie@cshl.org
Plate: hj98 row: g column: 11
Seq primer: -21M13UnivRev
High quality sequence stop:
Score 18.4; DB.6;
Pred. No. 6.7e+02;
0; Mismatches 1;
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Best Local Similarity 95.0%;
Matches 19; Conservative 0
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CB087214/c
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CC109078 17.9 bp DNA linear GSS 16-APR-2003 NDL.50B23.T7 Notre Dame Liverpool Aedes aegypti genomic clone NDL.50B23, genomic survey sequence. CC109078 CC109078 GSS. Aedes aegypti (yellow fever mosquito)
                                                                                                                                                                                                                                           CG692380 610 bp DNA linear GSS 14-OCT-2003
ZMMBBb0292G11.f ZMMBBb Zea mays genomic clone ZMMBBb0292G11 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 610)
Yu,Y., Kim,H.R., Hatfield,J., Soderlund,C., Bharti,A.K., Messing,J.
and Wing,R.
                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoideae, Andropogoneae, Zea.
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/note="Vector: pBeloBAC11; Site_1: HindIII; Site_2:
HindIII; Zea mays L. ssp. mays"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arizona Genomics Institute
University of Arizona
Biological Sciences West, 448A, P.O. Box 210088, Tucson, AZ
85721-0088, USA
Tel: 520 626 3967
Fax: 520 621 9288
Email: http://genome.arizona.edu
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                         Length 840;
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94.7%; Pred. No. 1.9e+03;
iive 0; Mismatches 1;
                    Score 18.4; DB 9;
Pred. No. 6.9e+02;
0; Mismatches 1;
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/mol_type="genomic DNA"
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/lab_hogt="DH10B"
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Unpublished (2003)
Contact: Rod Wing
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CG692380.1 GI:37656062
                  92.0%;
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Seg primer: T7
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Best Local Similarity 94.7
Matches 18; Conservative
                                                              Conservative
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Best Local Similarity
Matches 19; Conserv
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CC109078/c
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae; PACCAD
clade, Panicoldeae, Andropogoneae, Zea.
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Frser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Citek, R.W., Numberg, A., Robbins, D. and Lakey, N.
Consortium for Maize Genomics
                                                                                                                                                                                                                                                                                   /dev stage="pre-anthesis; Stage 2"
/clone lib="Hedyotis centranthoides flower - Stage 2
(NYBG)"
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/clone="zawmma0696704"
/clone=lb=zm 0.7 1.5 KB"
/note="Vector: pBcSr-; Site 1: HincII; 0.7-1.5 kb
methylation filtered genomic DNA library"
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Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8884
Fax: 516 367 8874
                                                                                                                                                                                     1. .598
/organism="Hedyotis centranthoides"
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/mol_type="genomic DNA"
/strain="B73"
                                                                             Email: mccombie@cshl.org
Plate: hk03 row: f column: 05
Seq primer: -21M13UnivRev
High quality sequence stop: 598.
Location/Qualifiers
                                                                                                                                                                                                                      /mol_type="mRNA"
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Other_GSSs: OG0DZ26TH
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CG271799
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Direct Submission
Submitted (12-APR-2000) Genoscope - Centre National de Sequencage :
BP 191 9100 (BENY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.

Location/Qualifiers
                            /db xref="taxon7159"
/clone="NDL.50B22"
/clone=lib="Notre Dame Liverpool"
/clone=lib="Notre Dame Liverpool"
/note="Vector: pECBAC1, Site_1: Hind III; The library was prepared from whole body tissue of newly hatched L1 larvae by David Severson at the University of Notre Dame and Hongbin Zhang"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CNSO40Z1 1005 bp DNA linear GSS 01-SEP-2000 Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone 073018 of library G from Tetraodon nigroviridis, genomic survey
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Tetracdon nigroviridis
Tetracdon nigroviridis
Tetracdon nigroviridis
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Bukaryota, Metoprerygii, Teleostei, Buteleostei, Neoteleostei,
Acathomorpha, Acathopterygii, Percomorpha, Tetracdontiformes;
Tetradontoidea, Tetracdontidae, Tetracdon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C., Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and Weissenbach, J. Characterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
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Bstimate of human gene number provided by genome-wide analysis using Tetraodon nigroviridis DNA sequence
Nat. Genet. 25 (2), 235-238 (2000)
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/db xref="taxon:99883"
/clone="073018"
/clone_lib="G"
PUC-Ori"
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Pred. No. 2e+03;
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/mol_type="genomic DNA"
/strain="Liverpool"
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AL269542.1 GI:7991434
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94.7%;
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/clone="NDL.50B23"
/clone lib="Notre Dame Liverpool"
/note="Vector: pECBAC1; Site_1: Hind III; The library was prepared from whole body tissue of newly hatched L1 larvae by David Severson at the University of Notre Dame and Hongbin Zhang"
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Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes;
                      Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes;
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Pred. No. 2e+03;
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Tel: 301-838-3543
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                                                                                                        Severson, D.
                                                                                                                                                                                                                                                          9712 Medical Center Drive, Rockville, MD 20850,
                                                                             Losewita.

Loftus, B., Shetty, J., Knudson, D. and Se Loftus, B., Shetty, J., Knudson, D. and Se BAC end sequencing of Aedes aegypti Unpublished (2003)
Other GSSs: NDL.50B23.SP6
Contact: Brendan Loftus
Department of Bukaryotic Genomics
                                                                                                                                                                                                                                                      Tel: 301-838-3543
Fax: 301-838-0208
Email: enta@tigr.org
Library was provided by David Severson
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Library was provided by David Severson
Seq primer: 17
Class: BAC ends.
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BAC end sequencing of Aedes aegypti
Unpublished (2003)
Other GSSS: NDL.50B22.SP6
Contact: Brendan Loftus
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Aedes aegypti
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/mol_type="genomic DNA"
/strain="Liverpool"
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ilarity 94.7%;
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Query Match
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BX426076 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone
CSODF009YC20 5-PRIME, mRNA sequence.
BX426076
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                                                                                                                                                                                                                                                                                                                                                                                                           Sessions, A., Burke, E., Presting, G., Aux, G., McBlver, J., Patton, D., Dietrich, B., Ho, P., Bacwaden, J., Ko, C., Clarke, J.D., Cotton, D., Bullis, D., Snell, J., Miguel, T., Hutchison, D., Kimmerly, B., Mizel, T., Katagiri, F., Glazebrook, J., Law, M. and Goff, S.A. A high-throughput Arabidopsis reverse genetics system Plant Cell 14 (12), 2985-2994 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Sessions A Applied Trait Genetics Syngenta Biotechnology Inc.
3054 Cornwallis Rd., Research Triangle Park, NC. 27709, USA Email: allen.sessions@syngenta.com
ABRC Stock Number CS846660; T-DNA left border flanking sequences o Syngenta Arabidopsis Insertion Library (SAIL) lines are available through the Arabidopsis Biological Resource Center (ABRC).
Sequences represent a pool of amplified genomic regions and not
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              Length 1005;
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          Score 17.4; DB 9; Length 1
Pred. No. 2e+03;
0; Mismatches 1; Indels
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Arabidopsis thaliana
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Class: TDNA tagged.
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            sh 87.0%;
l Similarity 94.7%;
18; Conservative (
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Best Local Similarity 94.7
Matches 18; Conservative
            Query Match
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This sequence belongs to sequence cluster 173.r

For more information about this cluster, see

This sequence belongs to sequence cluster 173.r

For more information about this cluster, see

FRATURES

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Eukaryotta; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 54)
Adams, D.J., Biggs, P.J., Cox, A.V., Davies, R.M., van der Weyden, I., Jonkers, J., Smith, J., Plumb, R.W., Taylor, R.G., Nishijima, I., Yu, Y., Rogers, J. and Bradley, A. Davies, B. Bibmitseion (20-FBs-2004) Sanger Centre, Hinxton, Cambridgeshire, CB10 18A, UK. http://www.sanger.ac.uk/MICER
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                                                                  EST 26-JUL-2004
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Wataryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 594)
                                                                  CO665888 587 26-JUL.
DG33-10506 DG33-aorta Canis familiaris CDNA 3', mRNA sequence.
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Dog arrayTAG cDNA clone collection
Unpublished (2004)
Contact: Thomas Schlueter
LION bioscience AG
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/lab_host="BH10B"
/clone "lba"33-aorta"
/noce="Organ: aorta; Vector: Dog pBluescript LION"
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Tel: +49 6221 4038 150
Fax: +49 6221 4038 290
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Location/Qualifiers
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/organism="Canis familiaris"
/mol_type="mRNA"
/strain="Beagle"
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    .54
    /organism="Mus musculus"

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/db_xref="taxon:10090"
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   /organism="Homo sapiens"
//organism="Homo sapiens"
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//clone="InAGB:6295181"
//tissue_type="melanotic melanoma, cell line"
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//lab host="NIH MGC_112"
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//clone lib="NIH MGC_112"
//clone lib="NIH MGC_112"
//clone lib="Organ: skin; Vector: pOTB7; Site l: XhoI; Site 2:
//note="Organ: skin; Vector: poTB7; Site l: XhoI; Site 2:
//note="Organ: skin; Vector: poTB7; Site l: XhoI; Site 2:
//note="Organ: skin; Vector: poTB7; Site l: XhoI; Site 2:
//clone lib="Organ: skin; Vector: daptor:
//clone lib="Organ: skin; Vector: daptor: daptor: daptor: lib: lib lib="Organ: skin; Vector: lib: lib lib="Organ: skin; Vector: lib: lib="Organ: skin; Vector: li
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The First Laboratory for Plant Gene Research
Kazusa DNA Research Institute
Yana 1532-3, Kisarazu, Chiba 292-0812, Japan
Email: yanakamu@kazusa.or.jp, URL:http://www.kazusa.or.jp/en/plant/.
Location/Qualifiers
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/strain="C9"
/strain="C9"
/db xref="taxon:3055"
/clone="CM097f03_r"
/dev_stage="photoautotrophic growth"
/clone lib="Chlamydomonas reinhardtii C9"
/note="Voctor: pBluescriptII SK-; Site_1: EcoRI; Site_2: XhoI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chlamydomonadaceae; Chlamydomonae.

I (base 1 to 354)

Asamizu, E., Nakamura, Y., Sato,S., Fukuzawa,H. and Tabata,S.
A large scale structural analysis of cDNAs in a unicellular green alga, Chlamydomonas reinhardtii. I. Generation of 3433

non-redundant expressed sequence tags

DNA Res. 6 (6), 369-373 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chlamydomonas reinhardtii
Chlamydomonas reinhardtii
Eukaryota; Viridiplantae; Chlorophyta; Chlorophyceae; Volvocales;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.0%; Score 17; DB 1; Length 354; 100.0%; Pred. No. 2.9e+03; tive 0; Mismatches 0; Indels
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100.0%; Pre-
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Matches 18; Conservative
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0; Gaps
Query Match

84.0%; Score 16.8; DB 9; Length 54;

Best Local Similarity 90.0%; Pred. No. 3.5e+03;

Matches 18; Conservative 0; Mismatches 2; Indels
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Search completed: April 29, 2005, 11:55:12 Job time : 1878.14 secs

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WS-09-949-016-46188

Sequence 46188, Application US/09949016

Sequence 46188, Application US/09949016

Sequence 46188, Application US/09949016

PATELE NO. 6812339

GENERAL INFORMATION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-3

PRIOR PLILING DATE: 2000-10-3
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): /cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-929-0136-1252
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Sequence 19926, Application US/09949016

Patent No. 6812339

GENERAL INPORMATION:

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

PRIOR PELLING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-06

SOFTWARE: PESCID NOS: 207012

SOFTWARE: PESCID NOS: 207012

SOFTWARE: PESCID NOS: 207012
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11746, A
113586, A
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6854, Ap
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             US-09-902-540-264
US-09-902-540-6080
US-09-902-540-6080
US-09-902-540-651
US-09-902-540-651
US-09-902-540-671
US-09-902-540-6854
US-09-949-016-113585
US-09-949-016-113585
US-09-949-016-113586
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US-09-949-016-113587
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US-09-949-016-12341
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US-09-949-016-12610
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90.0%; Pred. No. 1.6e+02;
iive 0; Mismatches 2;
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Best Local Similarity 90.00,
Best Local 18; Conservative
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Gaps

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COCATION: (1)...(26156)
OTHER INFORMATION:
NAME/STRY: misc.feature
LOCATION: (24801)
OTHER INFORMATION: nucleotide 24801 is a single nucleotide polymorphism which can b
OTHER INFORMATION: A or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc_feature
LOCATION: (24941). (24941). a single nucleotide polymorphism which can b
OTHER INFORMATION: Tor C
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OTHER INFORMATION:

LOCATION: (27179)..(30519)

OTHER INFORMATION:

NAME/KEX: misc feature

LOCATION: (27645)..(27645)

OTHER INFORMATION: uncleotide 27645 is a single nucleotide polymorphism which can be other information: C or G
                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/09922445
; Sequence 1, Application US/09922445
; Patent No. 6528268
; GENERAL INFORMATION:
; APPLICANT: Berglund, Lars G. T.
; APPLICANT: Reneland, Rikard H.
; APPLICANT: Reneland, Rikard H.
; TITLE OF INVENTION: REAGENTS AND METHODS FOR DETECTION OF HEART FAILURE
; TITLE REFERENCE: GG126US
; CURRENT APPLICATION NUMBER: US/09/922,445
; CURRENT FILING DATE: 2001-08-03
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 38653
                                                                                                                                                          o;
                                                                                                     Length 22928;
                                                                                                                                                            2; Indels
                                                                                                     Score 16.8; DB 4;
Pred. No. 1.7e+02;
                                                                                                     Query Match

84.0%; Score 16.8; Di
Best Local Similarity 90.0%; Pred. No. 1.7e
Matches 18; Conservative 0; Mismatches
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LOCATION: (26157).. (26252)
OTHER INFORMATION:
NAME/KEY: Intron
LOCATION: (26253).. (26401)
OTHER INFORMATION:
NAME/KEY: exon
LOCATION: (26402).. (26543)
OTHER INFORMATION:
NAME/KEY: Intron
NAME/KEY: Intron
LOCATION: (26444).. (27024)
OTHER INFORMATION:
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LOCATION: (30682)..(30894)
OTHER INFORMATION:
NAME/KEY: exon
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LOCATION: (27025)..(27178)
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LOCATION: (30520)..(30681)
OTHER INFORMATION:
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  ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-13071
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US-09-922-445-1/c
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Sequence 13071, Application US/09949016
Facett No. 6812339
GENERAL INFORMATION:
Patent No. 6812339
GENERAL INFORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUWAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUWAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
FRIOR PILING DATE: 2000-10-20
FRIOR FILING DATE: 2000-10-03
FRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FESTERE 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FESTERE OF WINDOWS Version 4.0
SEQ ID NO 13071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USGUENCE 11849

Sequence 11849, Application US/09949016

Sequence 11849, Application US/09949016

Sequence 11849, Application US/09949016

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYNORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION NUMBER: US/09/949,016

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR PLILING DATE: 2000-0-03

PRIOR PRIOR PLILING DATE: 2000-0-03

PRIOR PRIOR PRIOR OWNER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FREESEQ for Windows Version 4.0
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84.0%; Score 16.8; DB 4; Length 22927;
Best Local Similarity 90.0%; Pred. No. 1.7e+02;
Matches 18; Conservative 0; Mismatches 2; Indels 0;
                                                                                                                                                                                                                                          Query Match

84.0%; Score 16.8; DB 4; Length 601;
Best Local Similarity 90.0%; Pred. No. 1.6e+02;
Matches 18; Conservative 0; Mismatches 2; Indels
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 46188
LENGTH: 601
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US-09-949-016-11849
                                                                                                                                               ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-46188
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Sequence 2752, Application US/09489039A

Patent No. 6610836

GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: NUMBER: US/09/489,039A

CURRENT APPLICATION NUMBER: US/09/489,039A

CURRENT FILING DATE: 2000-01-27

PRIOR PAPLICATION NUMBER: US 60/117,747

PRIOR FILING DATE: 1999-01-29
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Patent No. 6703491

GENERAL INFORMATION:

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster;

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster;

FILE REFERENCE: File Reference: 7326-094

CURRENT APLICATION NUMBER: US/09/270,767

CURRENT FILING DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62517

SOFTWARE: PATENTION OF: 2.0
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                                                                                                                                                                    2; Indels
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                                                                                                                       Score 15.8; DB 4;
Pred. No. 4.6e+02;
0; Mismatches 2;
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Pred. No. 4.6e+02;
0; Mismatches 2;
                                     TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-270-767-26956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-270-767-11388
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; ORGANISM: Klebsiella pneumoniae
US-09-489-039A-2752
                                                                                                                          Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative
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Best Local Similarity 89.5%;
Matches 17; Conservative
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SEQ ID NO 2752
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                  RESULT 7
US-09-489-039A-2752
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LENGTH: 2255
SEQ ID NO 26956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 633
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                                                                                                                                                                                                                         NAME/KEY: misc_feature
LOCATION: (32163). (32163)
OTHER INFORMATION: nucleotide 32163 is a single nucleotide polymorphism which can be
OTHER INFORMATION: A or C
                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
LOCATION: (32614).
OTHER INFORMATION: nuclectide 32614 is a single nuclectide polymorphism which can be
OTHER INFORMATION: A or G
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APPLICANT: HOMBURGER et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILIG DAFE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PATENTIN VET. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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Pred. No. 1.7e+02;
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DATABASE ACCESSION NUMBER: Genbank/AC004923
DATABASE ENTRY DATE: 1999-12-21
RELEVANT RESIDUES: (1).(38653)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
8-09-270-767-26956
; Sequence 26956, Application US/09270767
; Patent No. 6703491
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                                                                                               NAME/KEY: exon
LOCATION: (31748)..(31841)
OTHER INFORMATION:
NAME/KEY: Intron
LOCATION: (31842)..(32400)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 90.09
Matches 18; Conservative
                                     NAME/KEY: Intron
LOCATION: (31028)..(31747)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                           OTHER INFORMATION: A or C NAME/KEY: exon LOCATION: (32401)..(32528)
                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: Intron
LOCATION: (32529)..(33414)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: Intron
LOCATION: (33598)..(34314)
OTHER INFORMATION:
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LOCATION: (34589)..(36404)
OTHER INFORMATION:
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LOCATION: (36405)..(36523)
OTHER INFORMATION:
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LOCATION: (38342)..(38653)
OTHER INFORMATION:
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LOCATION: (36524)..(38341)
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OTHER INFORMATION:
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OTHER INFORMATION:
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                                         GENERAL INFORMATION:
APPLICANT: BASBAUM, CAROL
APPLICANT: GALLUP, MARIANNE
APPLICANT: GALLUP, MARIANNE
APPLICANT: GALLUP, MASEFA
APPLICANT: GENERALCHAEL, ASSEFA
APPLICANT: GENERALCHAEL, ASSEFA
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR INHIBITION OF WUC-5 WUCIN
TITLE OF INVENTION: GENE EXPRESSION
TITLE OF INVENTION WUMBER: US/09/248,571
CURRENT FILING DATE: 1999-02-11
BARLIER APPLICATION NUMBER: 60/074,398
EARLIER FILING DATE: 1998-02-11
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PATENTIN VET. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: BASBAUM, Carol
APPLICANT: GALLUP, Marianne
APPLICANT: GALLUP, Marianne
APPLICANT: GENSCH, Erin
APPLICANT: GENSCH, Erin
APPLICANT: GENSCH, Erin
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-5
TITLE OF INVENTION: MCING GENE EXPRESSION
FILE REFERENCE: UCSF-012/03US
CURRENT APPLICATION NUMBER: US/09/553,736
CURRENT PILING DATE: 1999-02-11
PRIOR FILING DATE: 1999-02-11
PRIOR FILING DATE: 1998-02-11
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PATCHIN VER. 2.1
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Pred. No. 4.6e+02;
0; Mismatches 2; Indels 0
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Patent No. 6440672
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Sequence 2, Application US/09248571
Patent No. 6136539
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89.5%;
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Best Local Similarity 89.5%;
Matches 17; Conservative (
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; ORGANISM: Homo sapiens
US-09-248-571-2
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US-09-553-736-2
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Best Local Similarity
Matches 17; Conserv
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LENGTH: 3358
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RESULT 11
US-09-949-016-14895/C
Sequence 14895, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:

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APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PLING DATE: 2000-10-20

PRIOR PLING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 14895

LENGTH: 7353
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US-08-060-925A-12
US-08-060-925A-12
Sequence 12, Application US/08060925A
Sequence 12, Application US/08060925A
Sequence 12, Application US/08060925A
Sequence 12, Application US/08060925A
GENERAL INFORMATION:
TITLE OF INVENTION: INCREASED EXPRESSION OF ALPHA-1
TITLE OF INVENTION: INTRON II
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS: 12
CORRESPONDENCE ADDRESS: 3
STREET: 620 NEWPORT CENTER DRIVE SIXTEENTH FLOOR
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COMPUTRY: USA

ZIP: 92660

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/060,925A

FILING DATE: 06-NAY-1993

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Fuller, Michael L.

REGISTRATION NUMBER: 36,516

REFERENCE/DOCKET NUMBER: 36,516

REFERENCE/DOCKET NUMBER: NIH040.001A

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15.8; DB 4;
Pred. No. 4.6e+02;
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; OTHER INFORMATION: n = A,T,C or
US-09-949-016-14895
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TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 89.5
Matches 17; Conservative
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TELEFAX: 619-235-0176
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
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ORGANISM: Human
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US-09-489-039A-5836
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Sequence 13484, Application US/09949016

Batent No. 6812339

GENERAL INFORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOUTHWARE: FEBSESEQ for Windows Version 4.0
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Patent No. 6610906
GENERAL INFORMATION:
APPLICANT: Kurachi, Kotoku
APPLICANT: Kurachi, Sumiko
TITLE OF INVENTION: Use Thereof
FILE REFERENCE: UM-03603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                Query Match

90.0%; Score 15.8; DB 1; Length 10627;
Best Local Similarity 89.5%; Pred. No. 4.6e+02;
Matches 17; Conservative 0; Mismatches 2; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.8; DB 4; Length 1222;
Pred. No. 4.6e+02;
0; Mismatches 2; Indels 0:
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Pred. No. 4.6e
0; Mismatches
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CURRENT FILING DATE: 1999-06-09
CUMBER OF SEQ ID NOS: 84
SOFTWARE: PALENTIN VET. 2.0
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89.5%;
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Best Local Similarity 89.5%;
Matches 17; Conservative C
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Best Local Similarity 89.5
Matches 17; Conservative
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ORGANISM: Homo sapiens
US-09-328-925-42
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HYPOTHETICAL:
ANTI-SENSE: N
US-08-060-925A-12
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LENGTH: 36938
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US-09-328-925-42
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Sequence 5836, Application US/09489039A
Patent No. 6610836
GENERAL INFORMATION:
APPLICANT: GAY PRECON et. al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: PREDMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709.2004001
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Pred. No. 6.9e+02;
0; Mismatches 1;
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CURRENT FILING DATE: 1090-01-27
PRIOR PILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 5836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: April 29, 2005, 12:02:30 Job time : 60.6385 secs
16008 Greckchederechedescre 16026
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ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70 derecaccececades 86
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Best Local Similarity 94.1%;
Matches 16; Conservative
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Sequence : Sequence : Sequence :

Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

Minimum DB e Maximum DB e

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Database

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OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: MOND, JAMES J.
APPLICANT: MICHAEL
APPLICANT: KLINAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR PILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PACENTIN Ver. 2.1
SEQ ID NO 496
LENGTH: 20
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US-09-874-991C-538
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.
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Sequence 504, 1
Sequence 507, 1
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Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-466-022-178
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Maximum Match 100%
Listing first 45 summaries
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SOFTWARE: Patentin Ver. 2.1
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LENGTH: 20
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US-09-874-991C-540
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LENGTH: 20
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US-09-874-991C-507
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US-09-874-991C-504
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APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KIINMAN, DERNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REPRENENCE: O7789.0042-0
CURRENT APPLICATION NUMBER: 40/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRICR FILING DATE: 2001-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 507
LENGTH: 20
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APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REPERBNCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT APPLICATION NUMBER: 60/209,797
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR APPLICATION NUMBER: 60/209,797
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATE: 100 - 06-07
NUMBER OF SEQ ID NOS: 620
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Sequence 504, Application US/09874991C Publication No. US20040052763A1
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Best Local Similarity 100.0%;
Matches 20; Conservative 0;
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APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
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Publication No. US2
GENERAL INFORMATION
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GENERAL INFORMATION
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US-09-874-991C-514
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LENGTH: 20
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: THE GOVERNMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: VERTHELXI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-61999
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APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES :RENCE: 07787.0042-0
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                                  FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
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PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
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PRIOR FILING DATE: 2000-06-07
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ORGANISM: Artificial Sequence
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APPLICANT: THE GOVERNMENT OF THE SECRETARY OF THE DEPARTMENT OF HEALTH AND
APPLICANT: HUMAN SERVICES
APPLICANT: Klinman, Dennis M.
APPLICANT: Klinman, Dennis M.
APPLICANT: Gursel, Mayda
APPLICANT: Verhelyi, Daniela
TITLE OF INVENTION: METHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REFERENCE: 4239-6774
CURRENT APPLICATION NUMBER: US/10/486,755
CURRENT FILING DATE: 2004-02-12
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TITLE OF INVENTION: METHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REFERENCE: 4239-67746
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100.0%; Score 20; DB 18;
Best Local Similarity 100.0%; Pred. No. 12;
Matches 20; Conservative 0; Mismatches 0;
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100.0%; Score 20; DE
Best Local Similarity 100.0%; Pred. No. 12;
Matches 20; Conservative 0; Mismatches
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CURRENT FILING DATE: 2004-02-12
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PRIOR FILING DATE: 2001-08-14
PRIOR PELICATION NUMBER: PCT/US02/25732
NUMBER OF SEQ ID NOS: 127
SOFTWARE: Patentin version 3.2
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Publication No. US20040241841A1
GENERAL INFORMATION:
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Publication No. US20040241841A1
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                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
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Gursel, Mayda
                                                                                                                                                                                                  ; OTHER INFORMATION: synthetic US-10-666-022-178
        NUMBER OF SEQ ID NOS: 181
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LENGTH: 20
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                                                                                   LENGTH:
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Publication No. US20030144229A1

GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: LISHII, Ken
APPLICANT: USTHII, MANURER: US/10/194,035
CURRENT APPLICATION NUMBER: US/10/10122
PRIOR PILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATCHII VEF. 2.1
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Publication No. US20040105872A1
ENDIGATION SECRETARY OF the United States of America, as represented by the APPLICANT: Secretary of the Department of Health and Human Services
APPLICANT: Klinman, Dennis M.
APPLICANT: WINDERTON OF TREATING AND PREVENTING INFECTIONS IN IMMUNOCOMPROMISED TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
FILE OF INVENTION SUBJECTS WITH IMMUNOSTIMULATORY CPG
FILE REPERBNCE: 4239-66899
CURRENT APPLICATION NUMBER: US/10/666,022
CURRENT FILING DATE: 2003-09-17
PRIOR PILING DATE: 2002-09-18
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Pred. No. 12;
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Best Local Similarity 100.0%;
Matches 20; Conservative 0
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
                                                                                                                                   TYPE: DNA ORGANISM: Artificial Sequence
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NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 517
LENGTH: 28
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US-09-874-991C-525
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LENGTH: 28
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LENGTH: 28
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Sequence 13, Application US/10499597

Sequence 13, Application US/10499597

Publication No. US20050026245A1

GENERAL INFORMATION:

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

APPLICANT: Rouse, Barry T.

APPLICANT: Rouse, Barry T.

APPLICANT: Aliman, Dennis M.

APPLICANT: ALSO OF CPG OLIGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS FILE REFRENCE: 4239-64155-02

CURRENT APPLICATION NUMBER: US/10/499,597

CURRENT FILING DATE: 2004-06-17

PRIOR APPLICATION NUMBER: US 60/343,457

PRIOR PILING DATE: 2002-12-19

PRIOR PELICATON NUMBER: US 60/343,457
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APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KILINMAN, DENNIS M.
TITLE OF INVERTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR FILLING DATE: 2000-06-07
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Pred. No. 12;
0; Mismatches 0; Indels
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US-10-486-755-19
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PRIOR FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: PCT/US02/25732
PRIOR FILING DATE: 2002-08-13
NUMBER OF SEQ ID NOS: 127
SEQ ID NO 19
LENGTH: 20
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Best Local Similarity 100.0%;
Matches 20; Conservative 0
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SOFTWARE: Patentin version 3.1
SEQ ID NO 12
LENGTH: 20
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Best Local Similarity 100.0
Matches 20; Conservative
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, OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
US-09-874-991C-525
                                                             OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
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i Sequence 529, Application US/09874991C

j Publication No. US20040052763A1

i GENERAL INFORMATION:

APPLICANT: BLORA, MICHAEL

TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES

FILE REPERENCE: 07787.0042.0

CURRENT APPLICATION NUMBER: 05/09/874,991C

CURRENT FILING DATE: 2001-06-07

PRIOR APPLICATION NUMBER: 60/209,797

PRIOR PLICATION NUMBER: 60/209,797

PRIOR PLICATION NUMBER: 60/209,797

NUMBER OF SEQ ID NOS: 620

SOFTWARE: PatentIN Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                            | Sequence 525, Application US/09874991C
| Publication No. US20040052763A1
| GENERAL INFORMATION |
| APPLICANT: MOND, JAMES J. |
| APPLICANT: KLINAN, DENNIS M. |
| TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES |
| FILE REFERENCE: 07787,0042-0 |
| CURRENT PELLING DATE: 2001-06-07 |
| PRIOR APPLICATION NUMBER: 60/209,797 |
| PRIOR PELLING DATE: 2000-06-07 |
| NUMBER OF SEQ ID NOS: 620 |
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100.0%; Pred. No. 11;
iive 0; Mismatches
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100.0%; Pred. No. 11;
ive 0; Mismatches
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TYPE: DNA ORGANISM: Artificial Sequence
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Matches 20; Conservative
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Matches 20; Conservative
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ORGANISM: Artificial Sequence
FEATURE:
COTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
US-09-874-991C-537
, OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR US-09-874-991C-529
                                                                                                                                                                                                                                                                                                                                                                           | Sequence 3.3, Application US/09874991C | Publication No. US20040052763A1 | Publication No. US20040052763A1 | GENERAL INFORMATION: | APPLICANT: MOND, JAMES J. | APPLICANT: MOND, JAMES J. | APPLICANT: KLINMAN, DENNIS M. | TITLE OF INVERTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES FILE REFERENCE: 07787. 0042-0 | CURRENT FILING DATE: 2001-06-07 | PRIOR PPLICATION NUMBER: 60/209,797 | PRIOR PPLICATION NUMBER: 60/209,797 | PRIOR PPLING DATE: 2000-06-07 | NUMBER OF SEQ ID NOS: 620 | SOFTWARE: Patentin Ver. 2.1 | SEQ ID NO 537 | LENGTH: 28
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100.0%; Score 20; DB 11; Length 28;
Best Local Similarity 100.0%; Pred. No. 11;
Matches 20; Conservative 0; Mismatches 0; Indels
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Search completed: April 29, 2005, 12:35:40 Job time : 268.243 secs

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                   AX465393 | AX46642 | AX816642 | AX8152204 | AX35224 | AX35224 | AX35223 | AX35223 | AX35222 | AX35220 | AX352220 | AX35222
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Immunostimulatory rna/dha hybrid molecules
Patent: WO 0193902-A 503 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="teaxon:32630"
/note="Synthetic HDR"
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100.0%; Pred. No. 82;
ive 0; Mismatches
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AX352217
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                       GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Listing first 45 summaries
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AX352209
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Maximum DB seq length: 200000000
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Klinman, D., Ishii, K. and Verthelyi, D.
Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 34 19-JUL-2001,
Secretary Of the Department of Health and Human Services (US)
Location/Qualifiers
1. .20
/organism="synthetic construct"
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/mol taxon:32630"
/noTe="Synthetic DNA"
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 37 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/noTe="Synthetic DNA"
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Sequence 34 from Patent WO0151500.
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/note="Synthetic DNA"
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Local Similarity 100.0%; Pred. No. 82;
les 18; Conservative 0; Mismatches 0; Indels
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                   Mond, J.J., Flora, M. and Klinman, D.M.
Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 513 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 551 13-DEC-2001;
Biogynexus Incorporated (US)
Location/Qualifiers

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Sequence 32 from Patent WO0151500.
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 494 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 502 13-DEC-2001;
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/db_xref="texon:32630"
/note="Synthetic HDR"
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Sequence 494 from Patent WO0193902.
AX352198
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Sequence 502 from Patent W00193902.
AX352206.1 GI:18617489
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 38 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Matches 18; Conservative 0; Mismatcher No. 77747
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/db_xref="texon:32630"
/noTe="Synthetic DNA"
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/db_xref="teaxon:32630"
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Sequence 38 from Patent WO0151500.
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Sequence 43 from Patent W00151500.
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Sequence 72 from Patent WO0151500.
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Matches 18; Conservative
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 538 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 546 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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/mol_type="unassigned DNA"
lob_xref="taxon:32630"
/nofe="Synthetic HDR"
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/db xref="taxon:32630"
/noTe="Synthetic HDR"
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Sequence 546 from Patent WO0193902.
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Seguence 538 from Patent WO0193902.
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Matches 18; Conservative
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Matches 18; Conservative
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 505 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 512 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Sequence 512 from Patent WO0193902.
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Location/Qualifiers
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DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytoscatic; antimicrobial; anti-HIV; immunosuppressive; protozoaeje, virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
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          GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
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present invention relates to an immunostimulatory composition, which
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                                          comprises at least one oligonout entering both an RNA region and a DNA region. The composition is useful for enhancing both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                    The present invention relates to an immunostimulatory composition, which
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Pred. No. 21;
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            Example 11; Page 61; 68pp; English.
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comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for chhancing both an ENA region and an independent of the composition is useful for chancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or concinomes and sarcomes), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or amliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Boola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
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foote RNA or DNA/RNA hybrids. Thymidine is linked to at
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Best Local Similarity 100.
Matches 18; Conservative
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comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or altergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, preventing or ameliorating the symptoms resulting from exposure to a biowaffare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of the invention

Sequence 18 BP; 3 A; 3 C; 9 G; 3 T; 0 U; 0 Other;

Gaps .. 0 100.0%; Score 18; DB 6; Length 18; 100.0%; Pred. No. 21; 0; Indels Mismatches . 0 Local Similarity 100. Query Match

RESULT 4 ADD01052

ADD01052 standard; DNA; 18 BP ADD01052;

01-JAN-2004 (first entry)

CpG D oligonucleotide SEQ ID NO:16.

vascular endothelial growth factor; VEGF; CpG oligonucleotide; neovascularisation; angiogenesis; vulnerary; vasotropic; antiarteriosclerotic; gene therapy; skin graft; male pattern baldness; atherosclerosis; ischaemia; ss.

Synthetic.

WO2003054161-A2.

03-JUL-2003

19-DEC-2002; 2002WO-US040955.

20-DEC-2001; 2001US-0343457P.

(UYTE-) UNIV TENNESSEE RES CORP. (USSH) US DEPT HEALTH & HUMAN SERVICES.

Rouse BT; Klinman DM, Zheng M,

WPI; 2003-559138/52.

Inducing the production of vascular endothelial growth factor by a cell, useful for inducing angiogenesis, comprises contacting the cell with a CpG oligodeoxynucleotide.

Example 7; SEQ ID NO 16; 37pp; English.

The present invention describes a method for inducing the production of vaccular endothelial growth factor (VEGF) by a cell comprising contacting the cell with a CPG oligonucleotide and therefore inducing the production of VEGF by the cell. Also described: (1) inducing neovascularisation in a tissue, comprising introducing a CPG oligonucleotide into an area of the tissue where the formation of new blood vessels is desired, and so inducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an area of the subject where angiogenesis is desired, comprising introducing a CPG oligonucleotide to the area, and so promoting angiogenesis in the subject; and (3) screening for an agent that inhibits neovascularisation, comprising administering a CPG

oligonucleotide to a non-human mammal and administering the agent to the mammal, where inhibition of angiogenesis in the animal indicates that the agent is effective in inhibiting neovascularisation. The CpG oligonucleotides have vulnerary, vascularisation. The CpG activities, and can be used in gene therapy. The method and the CpG oligonucleotides can be used in gene therapy. The method and the CpG neovascularisation, such as in subjects with a skin graft, subjects who atherosclerosis or ischaemia. The method may also be used in screening for agents that inhibit neovascularisation. The present sequence represents a CpG oligonucleotide which is used in the exemplification of the present invention. 88888888888888888888

Sequence 18 BP; 3 A; 3 C; 9 G; 3 T; 0 U; 0 Other;

Gaps ö DB 10; Length 18; 0; Indels . 21; 0; Mismatches 100.0%; Score 18; Pred. No. 100.08; 18; Conservative Local Similarity Query Match Matches

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RESULT 5

BP. AAC80652 standard; DNA; 20

AAC80652;

(first entry) 14-FEB-2001

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:72.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection, bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic.

WO200061151-A2.

19-0CT-2000.

12-APR-2000; 2000WO-US009839.

99US-0128898P. (ISHI/) ISHII K. (VERT/) VERTHELYI D. (KLIN/) KLINMAN D. 12-APR-1999;

Verthelyi Klinman D, Ishii K,

ä

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.

Claim 4; Page 35; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY -3'. The central CpG motif is unmethylated, and the oligonucleotides

Verthelyi D;

Klinman D, Ishii K, (ISHI/) ISHII K. (VERT/) VERTHELYI D.

12-APR-1999; 99US-0128898P

(KLIN/) KLINMAN D.

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complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition compiles to an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition compirsing the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with complex. The oligonucleotides are able to induce a cell-mediated response, and those of the sequence 5'-RN-CPG-RX-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells cells and part of a natural killer (NK) cells. A cell-mediated or humoral response and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or conditions which may be treated include exem, allergic conditions, and the infections which may be treated include viral, the allergic conditions which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AlDS, creating, the allergic and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AlDS, cused in the treatment of an autoimmune response induction may also be created with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer capent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to immune response is used in antisense therapy and to improve the efficacy of a vaccine. 
optionally have phosphorothioate linkages which make them more resistant
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Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

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Gaps
                                 .,
   100.0%; Score 18; DB 4; Length 20; 100.0%; Pred. No. 21;
                                 0; Indels
                               Mismatches
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                                                             1 TGCATCGATGCAGGGGG 18
                                                                                          3 TGCATCGATGCAGGGGG 20
Query Match
Best Local Similarity 100.(
Matches 18, Conservative
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Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:34. AAC80614 standard; DNA; 20 BP. 14-FEB-2001 (first entry) AAC80614; RESULT 6 AAC80614

cpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple solerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiathmatic; dermatological; phosphorothioate; ss.

WO200061151-A2. 19-OCT-2000.

Synthetic

12-APR-2000; 2000WO-US009839.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RX - 3'. The central CpG motif is unmethylated, and the oligonucleotides of perionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting an informational composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-oligonucleotides are able to induce either a cell-onigonucleotides of the sequence 5'-RN-CpG-RY-3' being able to induce a muoral Response or a humoral Response, and those of the sequence 5'-NNN-CpG-WNN-3' cell-mediated response, and those of the sequence 5'-NNN-CpG-WNNN-3' cell-mediated response, and those of the sequence 5'-NNN-CpG-WNNN-3' cell-mediated or induce a humoral response it is thought that after administration, the oligonucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, cell-anding to activation of natural killer (MX) cells. A cell-mediated or humoral response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthms), or an infection, where an immunogenic Cgo oligonucleotide is administered either alone or conditions, math an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections with may be conditions and protozoal infections such as tuberculosis, Anderdations, rheumatoria arthritis and multiple sclerosis) a disease conditions, and protozoal infections with a mathematory and speciment of an agent of biological warfare. An immunogenic CpG coligonucleotide is used in the treatment of an agent of biological warfare. An immunogenic cpg coligo Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other; allergies, cancer, and autoimmune disorders and resulting from exposure to a bio-warfare agent. Claim 4; Page 29; 46pp; English WPI; 2001-006880/01.

100.0%; Score 18; DB 4; Length 20; 100.0%; Pred. No. 21; Mismatches .. 1 TGCATCGATGCAGGGGG 18 TGCATCGATGCAGGGGG 20 BP AAC80612 standard; DNA; 20 18; Conservative Similarity AAC80612; Query Match Local Matches RESULT 7 XXXX HXXXX ð

(first entry)

14-FEB-2001

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Gaps

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0; Indels

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:32.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; humoral response; B-cell response; antibody pacatitic; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple solerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic.

WO200061151-A2.

19-OCT-2000.

12-APR-2000; 2000WO-US009839.

12-APR-1999; 99US-0128898P.

(KLIN/) KLINMAN D.

(ISHI/) ISHII K. (VERT/) VERTHELYI D.

Klinman D, Ishii K, Verthelyi D;

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.

Claim 4; Page 29; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC805812-C80721). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5-NNNY-CpG-WNNN-1' or 5-RY-CpG-RY -1'. The central CpG motif is unmethylated, and the oligonucleotides of optionally have phosphorothicate linkages which make them more resistant to obstantially have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition complex. The oligonucleotide of the sequence 5'-RNYT-CpG-WNNN-3' call-mediated response, and those of the sequence 5'-RNYT-CpG-WNNN-3' call-mediated response, and those of the sequence 5'-RNYT-CpG-WNNN-3' call-mediated response and those of the sequence 5'-RNYT-CpG-WNNN-3' call-mediated response can then occur by activation of T- or B-cells. The induction of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immunogenic CpG oligonucleotide is administered either alone or melatorating an allergic reaction (preferably asthma), or an infection; which may be treated include eczema, allergic conditions which may be treated include viral, the allergic conditions which may be treated include viral, the allergic conditions which may be treated include eczema, allergic conditions, and the infections which may be treated include viral, and conditions which may be treated include eczema, allergic conditions, and the infections which may be treated include viral, cused in the treatment of an autoimmune agent of an autoimmune

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5.-NNNT-CpG-WNNN-3 or 5'-RY-CpG-RY-3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cellmediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cellmediated response, and those of the sequence 5'-NNT-CpG-MNNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms
administered to the host. The present sequence represents an immunogenic
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                                                                                                  100.0%; Score 18; DB 4; Length 20; 100.0%; Pred. No. 21;
                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:37.
                                                           Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;
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                                                                                                                                           Mismatches
                   CpG oligodeoxynucleotide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Klinman D, Ishii K, 'Verthelyi D;
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                                                                                                                                                                                     1 TGCATCGATGCAGGGGG 18
                                                                                                                                                                                                                            3 recarcearecadedes 20
                                                                                                                                                                                                                                                                                                                                   AAC80617 standard; DNA; 20 BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 18; Conservative
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(VERT/) VERTHELYI D.
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                                                                                                                                                                                                                                                                                            RESULT 8
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leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T or B-cells. The humoral response can then occur by activation of T or B-cells. The induction of an immune response is useful for treating, preventing or analiorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CgG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, urticaria, food allergies and other atopic conditions, and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, ADS, leishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then considered to the host. The present sequence represents an immunogenic consideration of the considered to the host. The present sequence represents an immunogenic administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention 8X3GGGGGGGGGGGGGGGGGGGGG

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

ö Gaps ; Match 100.0%; Score 18; DB 4; Length 20; Local Similarity 100.0%; Pred. No. 21; les 18; Conservative 0; Mismatches 0; Indels Query Match Matches

1 TGCATCGATGCAGGGGG 18 3 TGCATCGATGCAGGGGG 20 g ઠે

AAC80618 standard; DNA; 20 BP. 14-FEB-2001 (first entry) AAC80618; RESULT 9 AAC80618

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:38.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; r-cell response; humoral response; B-cell response; matibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple solerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic.

WO200061151-A2.

19-OCT-2000.

12-APR-2000; 2000WO-US009839.

99US-0128898P. .2-APR-1999;

KLIN/) KLINMAN D.

(VERT/) VERTHELYI D. ISHII K

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-006880/01.

The invention relates to novel immunogenic CpG oligodeoxymucleotides (AAC80581-C80723). The oligomucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-wNNN-3' or 5-RY-CpG-RY -3'. The central CpG motif is unmethylated, and the oligomucleotides of the departation also relates to an oligomucleotide delivery complex omportising an oligomucleotide of the invention and a targetting complex made and only on oligomucleotide delivery complex. The oligomucleotide of the invention and a targetting complex and a pharmaceutical composition comprising the oligomucleotide delivery complex. The oligomucleotides are able to induce a targetting calivery complex. The oligomucleotides are able to induce a targetting calivery complex and those of the sequence 5'-NNT-CpG-RNJ response, with oligomucleotides are able to induce a targetting and a targetting the oligomucleotide acts on antigen-presenting cells of the administration, the oligomucleotide acts on antigen-presenting cells calivery complex and charal killer (NK) cells. A cell-mediated or humoral response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligomucleotide is administered either alone or conditions, hayfever, urticaria, food allergies and characteria; preventing or conditions, which may be treated include eczema, allergic conditions which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions which may be treated include eczema, allergic conditions which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions which may be treated include eczema, allergic conditions which may be treated include eczema, allergic conditions which may be appeared in the treatment of an autoimmune disorder (e.g., upwar eczema, rhemmatoid arthritis and multiple sclerosis), a disease cryhematowus, rheumatoid arthritis and ö allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent. present sequence represents an immunogenic Gaps lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunocygo oligodeoxynucleotide of the invention Novel oligonucleotides useful for the prevention and treatment of .. 0 DB 4; Length 20; 0; Indels Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other; 21; 0; Mismatches 100.0%; Score 18; 100.0%; Pred. No. 3 English. TGCATCGATGCAGGGGG 18 18; Conservative Claim 4; Page 30; 46pp; Query Match Best Local Similarity -Matches à 셤

recarcaaracaacacaca 20

AAC80623 standard; DNA; 20 BP. RESULT 10 **AA**C80623

(first entry) 14-FEB-2001 AAC80623;

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:43.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; becal response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; paraeitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer;

Klinman \$X\$CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCX

immune deficiency, biological warfare agent, cytostatic, antiarthritic, antimicrobial; antiallergic; protozoacide; tuberculostatic, antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss. Verthelyi D; 12-APR-2000; 2000WO-US009839 99US-0128898P Ď, Ishii K, WPI; 2001-006880/01. (VERT/) VERTHELYI D. (KLIN/) KLINMAN D. (ISHI/) ISHII K. WO200061151-A2. 12-APR-1999; 19-OCT-2000 Synthetic

The invention retardes to novel immunogenic cpc oil pages 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY of comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oilgonucleotide delivery complex. The oilgonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oilgonucleotide of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with colloquoucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-RNNT-CpG-WNNN-3' being able to induce a humoral response. It is thought that after cell-mediated response and those of the sequence 5'-RY-CpG-RY-NNN-CpG-WNNN-3' being able to induce a humoral response. It is thought that after administration, the oilgonucleotide acts on antigen-presenting cells. The leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or meliorating an allergic reaction (preferably asthma), or an infection, where an immunosophic CpG oilgonucleotide is administered either alone or conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic conditions, and the infections will manned and schiscosmiasis. Immune response is tube Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent. oligonucleotide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention invention relates to novel immunogenic CpG oligodeoxynucleotides Claim 4; Page 30; 46pp; English.

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

Gaps ö 100.0%; Score 18; DB 4; Length 20; 100.0%; Pred. No. 21; cive 0; Mismatches 0; Indels Query Match Best Local Similarity 100.(Matches 18, Conservative

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3 TGCATCGATGCAGGGGG 20 셤

AAS09622

絽 AAS09622 standard; DNA; 20

AAS09622;

26-SEP-2001

(first entry)

Immunoreactive CpG sequence-containing oligonucleotide #72.

IfN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; intection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; utticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythemacosus; rhemacoata arthritis; multiple sclerosis; schistosomissis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss. CpG sequence; immune response; non-B cell activation; interferon gamma;

Synthetic.

WO200151500-A1.

19-JUL-2001.

12-JAN-2001; 2001WO-US001122.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

14-JAN-2000; 2000US-0176115P.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences.

Claim 5; Page 39; 48pp; English.

AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences. The different from another of the multiple CpG sequences. The Sequences is different from another of the multiple CpG sequences. The CDN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma introduction or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma. CC cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is induction of immune response improves the efficacy of a vaccine and is coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and enlaria, for treating immune system deficiency virus (HIV) and malaria, for treating immune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Francisella, schistosomiasis, the and multiple sclerosis, infections including Francisella, schistosomiasis, harbare agent, including Francisella, including Ebola, harbare agent, including Francisella schibareans and autoimmune and account and autoimmune and autoimmune and autoimmune and account and autoimmune and autoimmune and autoimmune and autoimmu Anthrax and Listeria

Sequence 20 BP; 3 A; 3 C; 11 G; 3 T; 0 U; 0 Other;

symptoms resulting from exposure of bio-warfare agent, including Ebola,

G; 3 T; 0 U; 0 Other;

Sequence 20 BP; 3 A; 3 C; 11

Anthrax and Listeria

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; brie-rapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare, vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.
                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunoreactive CpG sequence-containing oligonucleotide #32.
Length 20;
                                                   0; Indels
     4,
     Score 18; DB
Pred. No. 21;
                                                     Mismatches
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                                                                                                      1 TGCATCGATGCAGGGGG 18
     100.0%;
100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-442129/47.
                                Similarity
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     Query Match
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AASO9551-AASO9662 represent oligodeoxymuclectides (ODN) of at least 10 muleotides comprising multiple CpG sequences, where one of the CpG muleotides comprising multiple CpG sequences. The sequences is different from another of the multiple CpG sequences. The CpG sequences is different from an immune response, preferably a cell-comparation of the cpG sequences. The cpG sequences involving a cell activation, interferon activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma. The cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines
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                                                                                                                                                                                                                                                                                                                                                                                           CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; bic-warfare; allergy; asthma; cancer; autoimmune disorder; infection; bic-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; hupus erythematosus; rheumatoid arthritis; multiple sclerosis; schibtcsomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.
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DB 4; Length 20;
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AASO9551-AASO9662 represent oligodeoxymucleotides (ODN) of at least 10 mucleotides comprising multiple CpG sequences, where one of the CpG mucleotides comprising multiple CpG sequences. The collater of the multiple CpG sequences. The sequences is different from another of the multiple CpG sequences. The CpG sequences is different from another of the multiple CpG sequences. The condition of the multiple cpG sequences. The coll for induction or a humon-B cell activation, interferon gamma (IFN-gamma) production or a humon-B cell activation, interferon gamma (IFN-gamma) production or a humon-B cell activation, as the boat, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system edicored with the immune system edicored with the immune system exposure to blo-warfare agent in a human. The system exposure the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma immunodeficiency virus (HIV) and and alaria, for treating immune system deficiencies, e.g. lupus and autoimmune diseases such as rheumatoid arthritis and enthematosus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and

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against hepatitis A, B and C, human immunodeficiency virus (HIV) and malatia, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, Anthrax and Listeria
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Immunoreactive CpG sequence-containing oligonucleotide #43. AAS09593 standard; DNA; 20 BP 26-SEP-2001 (first entry) AAS09593; RESULT 14 AAS09593

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; Interperatic; allergy; aathma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistcosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.

14-JAN-2000; 2000US-0176115P. 12-JAN-2001; 2001WO-US001122. WO200151500-A1. 19-JUL-2001 Synthetic.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG Verthelyi D; Klinman D, Ishii K, WPI; 2001-442129/47.

(USSH) US DEPT HEALTH & HUMAN SERVICES

Claim 5; Page 34; 48pp; English.

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AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The

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                used in antisense therapy. The ODN are useful for treating, preventing ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and multiple aclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola,
induction of immune response improves the efficacy of a vaccine and is
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1es 18; Conservative
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CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; interleukin-6 production; bin-brargeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antiennes therapy; eczema; allergi chinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistcosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss. WO200151500-A1. 19-JUL-2001. Synthetic

Immunoreactive CpG sequence-containing oligonucleotide #34.

(USSH) US DEPT HEALTH & HUMAN SERVICES. 12-JAN-2001; 2001WO-US001122. 14-JAN-2000; 2000US-0176115P.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sednences

Verthelyi D;

D, Ishii K,

Klinman

WPI; 2001-442129/47.

Claim 5; Page 32; 48pp; English.

AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cellmediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B

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cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cacher, e.g. solid tumnour cancer, a disease associated with the immune system e.g. solid tumnour cancer, a disease associated with the immune cross autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The cross induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, including the filties of vaccines cross maint hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus crythematcous and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Franciscila, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, XX
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Search completed: April 29, 2005, 06:26:00 Job time : 184.527 secs

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0; Gaps

Query Match

100.0%; Score 18; DB 4; Length 20;

Best Local Similarity 100.0%; Pred. No. 21;

Matches 18; Conservative 0; Mismatches 0; Indels

GA Ea002 tigr-gss-1030126A0

SCCCFL506 oep83h09. VRK464 V1 BOGGD05TR SCEZFL404

StrPu691

GA Eb002 nm 16 b9 BOMMA43TR

BOGRT27TR

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nucleic

Run on:

Sequence:

Searched:

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Saccharum officinarum
Buccharum officinarum
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopaida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Saccharum; Saccharum officinarum
BQ815309 1030049F0
BG446545 GA ED003
BUG43335 1172112H0
BH450526 BOGFX73TR
BG444716 GA Ea002
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CL688248 PRI0149a
CO125145 GR Eb08H
CO116215 GR Eb018
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Clone distribution: clone distribution information can be found
through the Brazilian Clone Collection Center (BCCC) at
http://www.bccenter.fcav.unesp.br
Plate: 040 row: C coluun: 03
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Location/Qualifiers
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BH685253 E
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CD308125
CA247902
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Vettore, A.L., da Silva, F.R., Kemper, E.L. and Arruda, P. The libraries that made SUCEST
Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
Contact: Arruda P
Centro de Biologia Molecular e Engenharia Genetica
Universidade Estadual de Campinas
Gaixa Postal 6010, 13083-970, Campinas SP, Brazil
Tel: 55 19 3788 1089
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CA247902
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Maximum Match 100%
Listing first 45 summaries
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Maximum Minimum

Database

Result š ORIGIN

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AW325275 21-SEP-2000 TENU4637 T.cruzi epimastigote normalized cDNA Library Trypanosoma cruzi cDNA clone 25h9 5', mRNA sequence.
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Eukaryota; Buglenozoa; Kinetoplastida; Trypanosomatidae;
Trypanosoma; Schizotrypanum.
1 (bases 1 to 245)
Porcel, B.M., Tran, A.-N., Tammi, M., Nyarady, Z., Rydaker, M.,
Urmenyi, T.P., Rondinelli, E., Pettersson, U., Andersson, B. and
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Genome Res. 10 (8), 1103-1107 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 16.4; DB 1; Length 240;
Pred. No. 8.6e+02;
0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Aslund L
Department of Medical Genetics
Uppsala University
Uppsala University
16 18 1471 45 85
Fax: 46 18 52 68 49
Fax: 46 18 52 80 49
Fax: 17 primer
High quality sequence stop: 245.
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/mol_type="mRNA"
/strain="Cl-Brenner"
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                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 91.1%;
1 Similarity 94.4%;
17; Conservative C
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S. Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Carninci, P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N., Hirozane, T., Hori, F., Kai, C., Kawai, J., Kikuchi, N., Izawa, M., Kadota, K., Kagawa, I., Kai, C., Kawai, J., Kikuchi, N., Marama, M., Oda, H., Okazaki, Y., Sai, C., Y., Shibata, K., Shibata, K., Shibata, K., Shibata, Y., Suzuki, H., Takahashi, F., Tateno, M., Tominaga, N., Yokota, T., Yoshiki, A., Yoshino, M., Muramatsu, M., and Hayashizaki, Y. RIKEN Mouse ESTS (Konno, H., et al. 1999)

Lupublished (1999)

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The Institute of Physical and Chemical Research (RIKEN)
Tel: 81-45-503-9216
Fax: 81-45-503-9216
Fax: 81-45-503-9216
Fax: 81-45-503-9216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: genome-reseggsc.riken.jp, URL:http://genome.gsc.riken.jp/
Sasaki,N., Izawa,M., Watahiki,M., Ozawa,K., Tanaka,T., Yoneda,Y.,
Matsutra,S., Carninci,P., Muramatsu,M., Okazaki,Y. and
Hayashizaki,Y.
Transcriptional sequencing: A method for DNA sequencing using RNA
polymerase. Proc. Natl. Acad. Sci. U.S.A. 95 (7), 3455-3460 (1998)
Icoh,M., Kitsunai,T., Ariyama,J., Shibata,K., Izawa,M., Kawai,J.,
Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M.,
Okazaki,Y. and Hayashizaki,Y.
Automated filtration-based high-throughput plasmid preparation
system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                                                                                                                                                                          AV281636 AV281636 RIKEN full-length enriched, adult male testis (DH10B) Mus musculus cDNA clone 4933425005 3', mRNA sequence.
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/lab_host="DH10B"
/clone_lib="RIKEN full-length enriched, adult male testis
of each source of RNA and library construction can be obtained at http://sucest.lad.ic.unicamp.br/public"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Please visit our web site (http://genome.rtc.riken.go.jp) for further details.
                                                                                                                                        Gaps
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                                                                                           Length 807;
                                                                                           Score 17; DB 6; Le
Pred. No. 4.6e+02;
                                                                                      11arity 100.0%; Pred. No. 4.6
Conservative 0; Mismatches
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                                                                                   Query Match
Best Local Similarity
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contributed to prepare mouse tissues. 1st strand cDNA was
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L. Unpublished (1999)
                                                                                                                                                                                                                                        AV268287 RIKEN full-length enriched, adult male testis (DH10B) Mus musculus cDNA clone 4930534F16 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transcriptional sequencing: A method for DNA sequencing using RNA polymerase. Proc. Natl. Acad. Sci. U.S.A. 95 (7), 3455-3460 (1998) Itoh,M., Kiteunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J., Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999) Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303, 19-44 (1999)
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 257)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9226
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: genome-res@gec.riken.jp, URL:http://genome.gec.riken.jp/
Sasaki,N., Izawa,M., Watahiki,M., Ozawa,K., Tanaka,T., Yoneda,Y.,
Matsuura,S., Carninci,P., Muramatsu,M., Okazaki,Y. and
Hayashizaki,Y.
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  Mismatches
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/strain="C57BL/6J"
/db_xref="taxon:10090"
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/dev_stage="adult"
/lab_host="DH108"
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Mus musculus
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                                                                                       TGCATCGGTGCAGGGGGG 48
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17; Conservative
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TITLE JOURNAL COMMENT

FEATURES

ö GSS 09-JAN-2001 Contact: Sanchez D.O. Instituto de Investigaciones Biotecnologicas (Univ. Nac. de Gral San Martin) Av. Gral Paz S/N, INTI, Edificio 24, B 1650 KNA, San Martin, Buenos range Sequences were basecalled with phred and vector was masked with crossmatch (see http://genome.washington.edu). Sequences were then trimmed from both ends to remove low quality bases and masked AQ444154 1inear GSS 09-JAN-GSSC0007 Trypanosoma cruzi random genomic library Trypanosoma cruzi genomic clone G10L7, genomic survey sequence. Trypanosoma cruzi

Bukaryota; Buglenozoa; Kinetoplastida; Trypanosomatidae;

Trypanosoma; Shizotrypanum.

1 (bases 1 to 277)

Aguero, F., Verdun, R., Frasch, A.C.C. and Sanchez, D.O.

A random sequencing approach for the analysis of the trypanosom cruzi genome: general structure, large gene and repetitive DNA families, and gene discovery

Genome Res. 10 (12), 1996-2005 (2000) /cell type="epimastigote"
/clone_lib="Trypanosoma cruzi random genomic library"
/note="Vector: pBS(-) (Stratagene); T. cruzi DNA was randomanly sheared using a nebulizer and the 1 to 2 KD was gel purified and cloned into the dephosphoryated HincII site of the vector" Gaps On Sep 14, 2000 this sequence version replaced gi:9372108. ö 91.1%; Score 16.4; DB 1; Length 257; 94.4%; Pred. No. 8.6e+02; ive 0; Mismatches 1; Indels (91.1%; Score 16.4; DB 8; Length 277; Tel: (54-11) 4580/7255/7 Fax: (54-11) 4752-9639 Email: dsanchez@lib.unsam.edu.ar 1. .277 /organism="Trypanosoma c /mol_type="genomic DNA" /strain="CL-Brener" /db_xref="taxon:5693" /clone="G10L7" Seq primer: T7 Class: shotgun. Location/Qualifiers 97 recarceaeccaecec 114

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CO101616
GR Eb0028C17.f GR Eb Gossypium raimondii cDNA clone GR Eb0028C175, mRNA sequence.
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Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta; Magnoliophyta, eudicotyledons; core eudicots;
rosids; eurosids II; Malvales; Malvaceae; Malvoideae, Gossypium.
1 (bases I to 653)
Kim, H., Yu, Y., Kudrna, D., Hatfield, J., Stum, D., Mueller, C.,
Udall, J.A., Rapp, R.A., Wendel, J.F., Rao, K., Soderlund, C. and
Wing, R.A.
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/cloud="Vector: pCMV.SPORT-6.1; Site 1: Not1; Site 2:
/note="Vector: pCMV.SPORT-6.1; Site 1: Not1; Library made by Invitrogen with RNA supplied by
Wendle lab. Directional cloned into Not1-EV. Colonies
plated/picked by AGI. More glycerol clones held in -80."
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Unpublished (2004)
Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomics Institute
The University of Arizona
The University of Arizona
Tel: 520 626 1259
Eax: 520 621 1259
Email: http://genome.arizona.edu
Plate: 0028 row: C column: 17.
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/mol_type="mRNA"
/db_xref="taxon:29730"
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/tissue_type="floral"
/dev_stage="3 to +3 DPA"
/lab_host="DH108"
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9222
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/mol_type="mRNA"
/strain="C57BL/6J"
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/clone="4930544G09"
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/dev_stage="adult"
/lab_host="DH10B"
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                                 665 bp mRNA linear EST 15-JUN-2004 GR_Ea Gossypium raimondii cDNA clone GR_Ea36C02 5',
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Gossypium raimondii"
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/clone="GR_Ea35602"
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/tissue_type="whole seedlings"
/dev stage="first true leaves"
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/clone="lost" Ea"
/note="Vector: pGNV.SPORT-6.1; Site 1: NotI; Site 2:
EcoRy, Library made by Invitrogen with RNA supplied by Wendle lab. Directional cloned into NotI-EV. Colonies plated/picked by AGI. More glycerol clones held in -80."
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                                                                                                                                        Gossypium raimondii
Gossypium raimondii
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosida; eurosida II; Malvales; Malvaceae; Malvoideae; Gossypium.
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NH-WGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov
Iissue Procurement: The Cepko Laboratory
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Kim, H. Yu, Yu, Kudrna, D., Hatfield, J., Stum, D., Mueller, C., Udall, J.A., Rapp, R.A., Wendel, J.F., Rao, K., Soderlund, C. and Wing, R.A.

Unpublished (2004)

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Tel: $20 626 9595
Fax: $20 626 9595
Fax: $20 621 1259
Email: http://genome.arizona.edu
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Pujiyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y.

BAC end sequences of Library PTB

LD Chases 1 to 1014)

E 2 (Dases 1 to 1014)

S Pujiyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y.

Totoki, Y., Watanabe, H. and Sakaki, Y.

Direct Submission

LD Submitted (02-AUG-2001) Asao Fujiyama, The Institute of Physical and Chemical Research (RIKEN), Ganomic Sciences Center (GSC), 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:chimpbes@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9110)

Clones are derived from the chimpanzee BAC library PTB This BAC end was generated during the RED process and may have higher chance of clone tracking errors.
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AG056417.1 GI:16593876
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="retina"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_94"
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Average insert size 3.3 %b. Library enriched for
full-length clones and constructed by Life Technologies.
Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Pan.
cDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAMI1920 row: b column: 12
High quality sequence stop: 240.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1014
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                                                                                                                                                                                                                                                                                                                                                       organism="Mus musculus"
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/db_xref="taxon:10090"
/clone="IMAGE:5361707"
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Matches

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ORIGIN

DEFINITION

ACCESSION VERSION KEYWORDS

RESULT 11 CNS05EI8

ORGANISM

SOURCE

REFERENCE AUTHORS

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Direct Submission
Submitted (12-APR-2000) Genoscope - Centre National de Sequencage :
Submitted (12-APR-2000) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
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                                                                                                                    CNSO5CPL 1096 bp DNA linear GSS 01-SEP-2000 Tetraodon nigroviridis genome survey sequence T7 end of clone 021M06 of library A from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                         AL331410.1 GI:8225119
GSS; genome survey sequence.
Tetraodon nigroviridis
Tetraodon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetraodontoidea; Tetraodontidae; Tetraodon.
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Estimate of human gene more provided by genome-wide analysis using Tetracdon nigroviridis DNA sequence
Nat. Genet. 25 (2), 235-238 (2000)
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Corganisma-Tetraodon nigroviridis"
/mol type="genomic DNA"
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Pred. No. 9.8e+02;
0; Mismatches 1;
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Best Local Similarity 94.4%;
Matches 17; Conservative
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MEDLINE
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JOURNAL
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KEYWORDS
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Submitted (12-APR-2000) Genoscope - Centre National de Sequencage :
Submitted (12-APR-2000) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
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GGS; genome survey sequence.
GGS; genome nigroviridis
Tetraodon nigroviridis
Tetraodon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Tetraodon.
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                                                                                                                                                                                                                                                                                                                                                                                                                    Tetraodon nigroviridis genome survey sequence T7 end of clone
014J04 of library C from Tetraodon nigroviridis, genomic survey
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                                                                                                                                                                            Gaps
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                                                                                                                            Length 1014;
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/cell_type="lymphoblast"
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/db_xref="taxon:99883"
/clone="014J04"
                                                                                                                       Score 16.4; DB 9;
Pred. No. 9.7e+02;
0; Mismatches 1;
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                                                                                                                          91.1%;
94.4%;
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                                                                                                                                                                          17; Conservative
                                                                                                                                                Similarity
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Best Local Similarity
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Best Local 9
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Gaps

source

FEATURES

Matches

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ORIGIN

MEDLINE PUBMED

JOURNAL

TITLE

REFERENCE AUTHORS

MEDLINE

JOURNAL PUBMED

TITLE

TITLE JOURNAL

COMMENT

AUTHORS

REFERENCE

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/ Jab. mose="withur" |
// Jone | 10="ISBMS-RN" |
// Ince="Vector: pr713PAC; Site_1: EcoRI; Site_2: NotI;
// Ince="Vector: pr713PAC; Site_1: EcoRI; Site_2: NotI;
// Issues: Germinated seed and seedlings (1, 2, 8, 11 DAG),
// Mixed mature tissures (17, 21, 38, 69, 77 DAG); Kernels
// S, 10, 15, 20, 25, 30, DAP), Adventious roots (65
// DAG); Tassel (1-39 cm, 53 and 56 DAG); Immature ear
// (0.2-3.0 cm, 53, 56, 59 DAG), Husk (73 DAG); Silk,
// unpollinated first ear, ear shank, etiolated seedlings,
callus, Cycloheximide-treated callus, Anaerobic treated
seedlings, Kanetin-treated seedlings, Acpc
// Raminocyclopropane-1-carboxylix acid)-treated
seedlings, Kinetin-treated seedlings, AAC
// I-aminocyclopropane-1-carboxylix acid)-treated
seedlings, JA (Jasmonic acid)-treated
seedlings were generated as follows. First-strand cDNA
prepared from oligo-dT selected mRNA by priming with a
Noti oligo-dT primer (5'
// ACCOUNT ACCOU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           resulting DNA: The control was treated with RNASE H and used as a template for DNA Poll-caralyzed second strand synthesia. After the addition of EcoRI adaptors, the ds-cDNAs were disested with NotI and size-selected. The resulting molecules were directionally cloned into the EcoRI and NotI sites of the pTT7RAK vector. The library then went through one round of normalization to CoT value of 5 based on the methods of Marcelo Bento Soares (Genome
high-quality region of each sequence. Low-quality bases between the poly-T and the high-quality region were replaced with N's to serve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chlamydomonas reinhardtii
Chlamydomonas reinhardtii
Chlamydomonas reinhardtii
Eukaryota, Viridiplantae; Chlorophyta; Chlorophyceae; Volvocales;
Chlamydomonadaceae; Chlamydomonas.
1 (bases 1 to 347)
Asamizu,E., Nakamura,Y., Miura,K., Fukuzawa,H., Fujiwara,S.,
Hirono,M., Iwamoto,K., Matsuda,Y., Minagawa,J., Shimogawara,K.,
Takahashi,Y. and Tabata,S.
Establishiment of Publiciy Available cDNA Material and Information
Resource of Chlamydomonas reinhardtii (Chlorophyta), to Facilitate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP086394 11near EST 30-JUN-200
BP086394 Chlamydomonas reinhardtil C9 various conditions
Chlamydomonas reinhardtii cDNA clone MX007h07_r 5', mRNA sequence.
BP086394
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                                    poly-T and the high-quality region were replace
as spacers.

PCR PRIMES.

PCR PRIMES.

PCR PRIMES.

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PRIMES.
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/mol type="mRNA"
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoldeae, Andropogoneae, Zea.
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When T.J., Olu, P., Guo, L., Ashlock, D.A. and Schnable, P.S.

Expressed Sequence Tass from B73 Maize: various stages and tissues including seedlings treated with a variety of hormones (Unpublished (2001) Contest: Patrick S. Schnable Schnable Laboratory
                                                                                  Eukaryóta; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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/clone="ZMMBTa6544P06"
/clone_lib="ZM_0.6_1.0 KB"
/note="Vector: pCR4-TOPO; Site_1: EcoRI; 0.6-1.0 kb high
CoT selected genomic DNA library"
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Individual basecall and confidence value were assigned using the
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G405 Agronomy, Iowa State University, Ames, IA 50011-1010, USA
Tel: 515-294-0975
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Yuan, Y., San Miguel, P., Ma, J. and
Bennetzen, J.
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9712 Medical Center Drive, Rockville, MD 20850, USA
TEL: 301-838-5848
Fax: 301-838-0208
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/strain="B73"
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/organism="Zea mays"
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Seg primer: TF
Class: sheared ends.
Location/Qualifiers
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Unpublished (2003)
Other GSS8: PUIBJ87TB
Contact: Cathy Whitelaw
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Matches 16; Conservative 0;
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EST 30-JUN-2004

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Gene Function Analysis

DOURNAL Phycologia (2004) In press

COMMENT To Erika Asamizu

The First Laboratory for Plant Gene Research

Kazusa DNA Research Institute

Yana 1532-3, Kisarazu, Chiba 292-0812, Japan

Email: asamizu@kazusa.or.jp, UKL:http://www.kazusa.or.jp/en/plant/.

Location/Qualifiers

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// Organism="Chlamydomonas reinhardtii"
// Strain="Cys" "Clone="Wax0070h07" r"
// Clone="Wax0070h07" r"
// Clone="Wax0070
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Search completed: April 29, 2005, 11:55:15 Job time : 1690.62 secs

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NSO(2-09-99-016-14588)c

Sequence 14588, Application US/09949016

Sequence 14588, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 2009/949,016

CURRENT APPLICATION NUMBER: 60/241,755
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Sequence 30, Appl
Sequence 677, App
                                                                                                                                                    April 29, 2005, 05:17:55 ; Search time 52.6622 Seconds (without alignments) 559.282 Million cell updates/sec
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(Ggn2_6/ptodata/1/ina/PcTuS_COMB.seq:*
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-949-016-13608
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US-09-949-016-13608
US-09-103-840A-1
US-09-103-840A-1
US-09-949-016-677
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Maximum Match 100%
Listing first 45 summaries
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Result

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Sequence 11868, Application US/09949016
Fatent No. 6812339
GENERAL INFORMATION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
FILE REPERENCE: CL001307
CURRENT APPLICATION NUMBER: 00/241,755
FRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,498
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-00-09-08
NUMBER OF SEQ ID NOS: 2007012
SEQ ID NO 11868
SEQ ID NO 11868
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                                                Sequence 1, Appli
Sequence 8180, A
Sequence 82181, A
Sequence 205054,
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Sequence 205056,
Sequence 205056,
Sequence 1581, Appl
Sequence 1581, Appl
 2715, Ap
12419, A
12419, A
26956, A
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82180, A
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ALIGNMENTS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY: misc_feature
; LOCATION: (1)...(300598)
; OTHER INFORMATION: n = A,T,C or G
US-09-949-016-11868
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CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR RILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-06
SOFTWARE: PASELSEQ FOR WINDOWS VETSION 4.0
SOFTWARE: PASELSEQ FOR WINDOWS VETSION 4.0
EINGTH: 308362
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| LOCATION: (1)...(308362)

| OTHER INFORMATION: n = A,T,C or G

US-09-949-016-17119
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Best Local Similarity 88.90
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ORGANISM: Homo sapiens
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LENGTH: 3358
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APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
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Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
ITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLO01307
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 85.6%; Score 15.4; DB 4; Length 302604; Best Local Similarity 94.1%; Pred. No. 2.78+02; Matches 16; Conservative 0; Mismatches 1; Indels 0;
     PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14588
LENGTH: 302604
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| LOCATION: (1)...(302604)
| OTHER INFORMATION: n = A,T,C or G
US-09-949-016-14589
                                                                                                                                                                                                                                                                                                                                                ; LOCATION: (1)...(302604); OTHER INFORMATION: n = A,T,C or G
US-09-949-016-14588
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Sequence 2, Application US/09248571

| Sequence 2, Application US/09248571
| Patent No. 6136539
| GENERAL INFORMATION:
| APPLICANT: BASBAIM, CAROL
| APPLICANT: GENERALLUP, MARIANNE
| APPLICANT: GENERAL ASSEFA
| APPLICANT: GENERAL ASSEFA
| APPLICANT: GENERAL ASSEFA
| APPLICANT: GENERAL ASSEFA
| TITLE OF INVENTION: GONEOSITIONS AND METHODS FOR INHIBITION OF MUC-5 MUCIN
| TITLE OF INVENTION: GENE EXPRESSION
| TITLE OF INVENTION: GENE EXPERSION
| TITLE OF INVENTION: GENE EXPERSION
| TITLE OF INVENTION: GENE EXPERSION
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Length 308362;
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                                                                                                                                                      1; Indels
Query Match 85.6%; Score 15.4; DB 4; Best Local Similarity 94.1%; Pred. No. 2.7e+02; Matches 16; Conservative 0; Mismatches 1;
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Gaps

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GENERAL INFORMATION:
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GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
ITLE REPERRNCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
FRIOR PILING DATE: 2000-10-20
FRIOR FILING DATE: 2000-10-03
FRIOR FILING DATE: 2000-10-03
FRIOR FILING DATE: 2000-06-08
FRIOR FILING DATE: 2000-09-08
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JAPPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

FILE REPRENCE: CLOOL307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012
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       PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13352
LENGTH: 17032
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Patent No. 6812339
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Best Local Similarity 88.9
Matches 16; Conservative
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Human
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ORGANISM: Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | APPLICANT: VENTER, J Craig et al. | APPLICANT: VENTER | AND USES THEREOF | TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF | FILE REFERENCE: CLOO1307 | CURRENT APPLICATION NUMBER: 06/241,755 | PRIOR APPLICATION NUMBER: 60/241,755 | PRIOR FILING DATE: 2000-10-20 | PRIOR FILING DATE: 2000-10-03 | PRIOR FILING DATE: 2000-10-03 | PRIOR FILING DATE: 2000-09-08 | NUMBER OF SEQ ID NOS: 207012 | SOFTWARE: FRAEESEQ for Windows Version 4.0 | SEQ ID NO 12476 | LENGTH: 17032
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'Sequence 13352, Application US/09949016
'Patent No. 6812339
'GENERAL INFORMATION:
'TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
'TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
'TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
'CURRENT EPLING DATE: 2000-04-14
'PRIOR APPLICATION NUMBER: 60/241,755
'PRIOR FILING DATE: 2000-10-20
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE INHIBITION OF MUC-STITLE REPERENCE: UCSF-0.27/03US
CURRENT APPLICATION NUMBER: US/09/553,736
CURRENT FILING DATE: 2000-04-20
PRIOR PAPLICATION NUMBER: US 09/248,571
PRIOR PELING DATE: 1999-02-11
PRIOR PELING DATE: 1998-02-11
PRIOR FILING DATE: 1998-02-11
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PATENTIN VET: 2.1
SEQ ID NO 2
LENGTH: 3358
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Pred. No. 4.2e+02;
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Sequence 12476, Application US/09949016
Patent No. 6812339
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Best Local Similarity 88.9%;
Matches 16; Conservative C
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Best Local Similarity 88.9%;
Matches 16; Conservative
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US-09-949-016-12476
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Sequence 13697, Application US/09252991A
Sequence 13697, Application US/09252991A
Fatent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
ATITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1999-02-18
PRIOR FILING DATE: 1999-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                        Sequence 13444, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
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                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR PRILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
NUMBER OF SEQ ID NOS: 33142
LENGTH: 1092
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Parent No. 6664092
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Pseudomonas aeruginosa
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                                                264 GCATCGATGCCGGGGG 249
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Matches 15, Conservative
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LENGTH: 1194
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US-09-079-592-1/c
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Sequence 13644, Application US/09252991A

Sequence 13644, Application US/09252991A

Patent NO. 6551795

GENERAL INFORMATION:

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: 107196.136

CURRENT APPLICATION NUMBER: US 60/074,788

PRIOR FILING DATE: 1999-02-18

PRIOR PLING APPLICATION NUMBER: US 60/094,190

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 13644
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Patent No. 6703491

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Homburse et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 14521
LENGTH: 736
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88.9%; Pred. No. 5e+02;
tive 0; Mismatches 2; Indels 0;
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80.0%; Score 14.4; DB 4; Length 736;
Best Local Similarity 93.8%; Pred. No. 4.9e+02;
Matches 15; Conservative 0; Mismatches 1; Indels 0
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 11757
LENGTH: 131631
                                                                                                                                                                                                                                                                                                                                                                                                                      129056 recargearecadeaded 129039
                                                                                                                                                                      ; LOCATION: (1)....(131631)
; OTHER INFORMATION: n = A,T,C or G
US-09-949-016-11757
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Best Local Similarity
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Best Local Similarity
Matches 15; Conserv
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                                                                                                   ORGANISM: Human
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; APPLICANT: Kimberly Brown
; APPLICANT: Michel W. Rey
; APPLICANT: Alan Klotz
; APPLICANT: Alan Klotz
; APPLICANT: Alan Klotz
; APPLICANT: Tony Byun
; TTTLE OF INVERTION: Polypeptides Having Dipeptidy1
; TTTLE OF INVERTION: Polypeptides Activity And Nucleic Acids Encoding Same
; CURRENT PAPLICATION NUMBER: U8/09/079,592B
; CURRENT PAPLICATION NUMBER: 08/857,884
; RRIOR PAPLICATION NUMBER: 08/857,884
; RRIOR PILING DATE: 1997-10-20
; ROTHWARE: FastSEQ for Windows Version 4.0
; SOFTWARE: FastSEQ for Windows Version 4.0
; SOFTWARE: Aspergillus
US-09-079-592-1

QUARY MATCH

QUARY MATCH

TGCATCGATGGGGG 16

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I TGCATCGATGGAGGG 16

Db

3367 TGCATCGATGGAGGGG 16

Db

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Query Match
100.0%; Score 18;
Best Local Similarity 100.0%; Pred. No. 3
Matches 18; Conservative 0; Mismatche
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ORGANISM: Artificial Sequence
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12, App
16, App
494, App
502, App
512, App
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538, App
546, App
                                                                                                                     April 29, 2005, 06:00:59; Search time 241.419 Seconds (without alignments) 453.893 Million cell.updates/sec
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Sequence 513, 7
Sequence 551, 7
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1: /cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.seq:*
3: /cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
4: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
5: /cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.seq:*
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11: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-874-991C-513
US-09-874-991C-551
US-10-068-160-12
US-10-499-597-16
US-09-874-991C-494
US-09-874-991C-502
US-09-874-991C-512
US-09-874-991C-512
US-09-874-991C-518
US-09-874-991C-538
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Maximum.Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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seq length: 2000000000
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US-10-194-035-38

US-10-194-035-38

US-10-194-035-38

US-10-194-035-72

US-10-194-035-72

US-10-666-022-177

US-10-730-776-7

US-10-730-776-7

US-10-499-597-24

US-10-499-597-24

US-10-499-597-24

US-10-865-245-70

US-09-874-991C-504

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US-09-874-991C-535
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ALIGNMENTS

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OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
                                                            APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KILNMAN, DENNIS M.
TITLE OF INVENTION: INMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR PRILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PALENTIN UVER: 2.1
SEQ ID NO 503
LENGTH: 18
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Sequence 503, Application US/09874991C; Publication No. US20040052763A1; GENERAL INFORMATION:
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; OTHER INFORMATION: Oligonucleotide US-10-068-160-12
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Sequence 12, Application US/10068160

Publication No. US203030060440A1

GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
                                                                  APPLICANT: MOND, JAMES J.
APPLICANT: MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINAN, DENNIS M.
TITLE OF INVENTION: INMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
TILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 513
LENGTH: 18
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APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHABL
APPLICANT: FLORA, MICHABL
APPLICANT: FLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
NUMBER OF SEQ ID MOSS: 620
SOFTWARE: Patentin Ver. 2.1
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Sequence 513, Application US/09874991C Publication No. US20040052763A1 GENERAL INFORMATION:
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Best Local Similarity 100.(
Matches 18; Conservative
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LENGTH: 18
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Page 2

APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITILE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
TILLE REFERENCE: 4239-61999
CURRENT FILING DATE: 2002-02-06
PRIOR PRIOR PELING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
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TYPE:
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Hublicartion No. US2050026245A1

Sequence 16, Application US/10499597

Hublicartion No. US2050026245A1

GENERAL INFORMATION:

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

APPLICANT: APPLICANT: ALeng, Mei

TITLE OF INVENTION: USE OF CPG OLIGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS

FILE REFERENCE: 4239-64125-02

CURRENT APPLICATION NUMBER: US/10/499,597

CURRENT APPLICATION NUMBER: ECT/US02/40955

PRIOR FILING DATE: 2002-12-19

PRIOR FILING DATE: 2001-12-20

NUMBER OF SEQ ID NOS: 106

NUMBER OF SEQ ID NOS: 106

NUMBER OF SEQ ID NOS: 106

SOFTWARE: PATCHILI VEFFICION 3.1
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Publication No. US20040052763A1
GENERAL INFORMATION:
APPLICANT: MOND, JAMES J.
APPLICANT: KLINKAN, DENNIS M.
APPLICANT: KLINKAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
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Matches 18; Conservative 0; Mismatch
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Length 20; Indels

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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR US-09-874-991C-505
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US-09-874-991C-512
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
US-09-874-991C-538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KILNAN, DENNIS M.
TITLE OF INVENTION: INMUNISORIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 512
MANDER OF SEQ ID NOS: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMINOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
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100.0%; Pred. No.
tive 0; Mismatch
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PRIOR FILING DATE: 2000-06-07
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 18; Conservative
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SOFTWARE: Patentin Ver. 2.
SEQ ID NO 538
LENGTH: 20
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          SEQ ID NO 505
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; CTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR US-09-874-991C-494
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
US-09-874-991C-502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT FILING DATE: 2001-06-07
CURRENT FILING DATE: 2000-06-07
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 502
LENGTH: 20
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APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: ILIMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
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100.0%; Score 18; DB 11;
Best Local Similarity 100.0%; Pred. No. 18;
Matches 18; Conservative 0; Mismatches 0;
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
FRICH APPLICATION NUMBER: 60/209,797
FRICH APPLICATION NUMBER: 60/209,797
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 494
LENGTH: 20
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CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR FILING DATE: 2000-06-07
SUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN VEY: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 502, Application US/09874991C Publication No. US20040052763A1 GENERAL INFORMATION:
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Best Local Similarity 100.0
Matches 18; Conservative
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OTHER INFORMATION: Oligonucleotide
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SOFTWARE: PatentIn version 3.1
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LENGTH: 20
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US-09-874-991C-550
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; Boublication No. US20040052763A1
; Boublication No. US20040052763A1
; APPLICANT: MOND, JAMES J.
; APPLICANT: KILNMAN, DENNIS M.
; TITLE OF INVENTION: IMMINOSTIMULATORY RNA/DNA HYBRID MOLECULES
; FILE REFERENCE: 07787.0042-0
; CURRENT APPLICATION NUMBER: US/09/874,991C
; CURRENT FILING DATE: 2001-06-07
; PRIOR APPLICATION NUMBER: 60/209,797
; PRIOR PILING DATE: 2000-06-07
; NUMBER OF SEQ ID NOS: 620
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 546
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Sequence 550, Application US/09874991C

Sequence 550, Application US/09874991C

Publication No. US20040052763A1

GENERAL INFORMATION:
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
Score 18; DB 11; Length 20;
Pred. No. 18;
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Best Local Similarity 100.0%; Pred. No. 18;
Matches 18; Conservative 0; Mismatches 0; Indels
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Query Match 100.0%; So
Best Local Similarity 100.0%; Po
Matches 18; Conservative 0;
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ORGANISM: Artificial Sequence
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US-09-874-991C-546
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Sequence 38, Application US/10068160
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; Publication NO. US20030060440A1
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; Publication NO. US20030060440A1
; Publication NO. US20030060440A1
; Publicant: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
APPLICANT: USETTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-61999
; CURRENT APPLICATION NUMBER: US/10/068,160
; CURRENT FILING DATE: 1999-04-12
; NUMBER OF SEQ ID NOS: 120
; SOFTWARRE: PatentIn version 3.1
; SEQ ID NO 38
Sequence 1, Application US/10068160

Publication No. US20030060440A1

GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE
APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: USHILLY, Daniela
APPLICANT: OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR FILING DATE: 1999-04-12
PRIOR FILING DATE: 1999-04-12
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RESULT 15

US-10-068-160-54

is Sequence 54, Application US/10068160

is Publication No. US20030060440A1

is GENERAL INFORMATION:

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES

APPLICANT: ISHII, Ken

APPLICANT: ISHII, Ken

APPLICANT: USHII, Ken

APPLICANT: USHII, Ken

APPLICANT: USHII, Ken

APPLICANT: USHII, Ken

CURRENT SPELICATION: UNMBER: US/10/068,160

CURRENT PELING DATE: 1999-04-12

FILE REPERENCE: 4239-61999

CURRENT FILING DATE: 1999-04-12

NUMBER 095 SEQ ID NOS: 120

SOFTWARE: PALENTIN VUMBER: 60/128,898

PRIOR FILING DATE: 1999-04-12

SEQ ID NO 54

LENGTH: 20

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CTHER INFORMATION: Oligonucleotide

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ORGANISM: Artificial Sequence
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Search completed: April 29, 2005, 12:35:40 Job time : 241.419 secs

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AC07319 Desulfovi
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AC13724 Rattus no
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AC1373254 Sattus no
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                  AX352224 Sequence
AX352232 Sequence
AX352236 Sequence
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="texon:32630"
/noTe="Synthetic DNA"
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other sequences; artificial sequences.
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Sequence 496 from Patent WO0193902.
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Sequence 42 from Patent WO0151500.
AX194442
AX194442.1 GI:15385098
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AC073816
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AX352219
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              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Maximum Match 100%
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seq length: 200000000
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 540 13-DEC-2001,
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 514 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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/noTe="Synthetic HDR"
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             Mond,J.J., Flora,M. and Klinman,D.M.
Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 496 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 504 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 507 13-DEC-2001;
Biosynexus Incorporated (US)
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100.0%; Pred. No. 4.8e+02;

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/db_xref="taxon:32630"

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/mol type="unassigned DNA"
/db_xref="taxon:32630"
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/mol_type="unassigned DNA"
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Sequence 507 from Patent WO0193902.
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 525 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mond, J.J., Flora, M. and Klinman, D.M.
Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 529 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Immunostimulatory rna/dna hybrid molecules
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AX352229.1 GI:18617512
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Vaccine against RSV
Vaccine against RSV
Bracht: WO 0211761-A 60 14-FEB-2002;
HERRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 517 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Ab_tref="taxon:32630"
/note="Synthetic oligonucleotide"
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100.0%; Pred. No. 4.6e+02;
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/noTe="Synthetic HDR"
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Sequence 517 from Patent W00193902.
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AX352221.1 GI:18617504
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Sequence 60 from Patent W00211761.
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Klenk, H.P., Clayton, R.A., Tomb, J.-F., White, O., Nelson, K.E., Nelk, H.P., Clayton, R.A., Tomb, J.-F., White, O., Nelson, K.E., Ketchum, K.A., Dodson, R.J., Gwinn, M., Hickey, E.K., Peterson, J.D., Rerlawage, A.R., Graham, D.E., Kyrpides, N.C., Fleischmann, R.D., Quackenbush, J., Lee, N.H., Sutton, G.G., Gill, S., Kirkness, E.F., Dougherty, B.A., McKenney, K., Adams, M.D., Loftus, B., Peterson, S., Reich, C.I., McNeil, L.K., Badger, J.H., Glodek, A., Zhou, L., Overbeek, R., Gocayne, J.D., Weidman, J.F., McDonald, L., Utterback, T., Cotton, M.D., Spriggs, T., Artiach, P., Kaine, B.P., Sykes, S.M., Sadow, P.W., D'Andrea, K.P., Bowman, C., Fujii, C., Garland, S.A., Mason, T.M., Olsen, G.J., Fraser, C.M., Smith, H.O., Woese, C.R., and Venter, J.C.
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PIGCENKETPYEHEVVLLIPPILIVALSYWWKKRSKKRLIEVEGVBIEGPYKKSIT
KLFANCHKCGKREYLLPYQCNYCGNYFCGEHILLPPKHDCPGEKEWRSKAPLPPGVVWEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (15-DEC-1997) The Institute for Genomic Research, 97.2 Submitted (15-DEC-1997) The Institute for Genomic Research, 97.2 Medical Center Dr. Rockville, MD 20850, USA In order to show the genes in ascending order on the genome, the origin of this version has been moved by TiGR to position 2093570 of the original version and the opposite strand is shown from the original version and the opposite strand is shown from the Original version.

On Dec 16, 1997 this sequence version replaced gi:2649104.
Garland, S.A., Mason, T.M., Olsen, G.J., Fraser, C.M., Smith, H.O., Woese, C.R. and Venter, J.C.
The complete genome sequence of the hyperthermophilic, sulphate-reducing archaeon Archaeoglobus fulgidus
Nature 390 (6658), 364-370 (1997)
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complement (159, .1019)
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/gene="AF1455"
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/gene="AF1455"
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Archaeoglobus fulgidus DSM 4304 section 105 of 172 of the complete
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 548 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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           Patent: WO 0193902-A 537 13-DEC-2001;
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Location/Qualifiers
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AX352252.1 GI:18617535
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AUTHORS
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AX352252
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KEYWORDS
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ALATYVSHFHHESRSKRAYPLYILLFVFWLLNISLTFRFLDEFRFAIYTLSVAVILI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
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Oligodeoxyruclectide and its use to induce an immune response
Patent: WO 0151500-A 101 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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100.0%; Pred. No. 7.3e+02;
tive 0; Mismatches 0; Indels (
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/mol type="taxon:32630"
/nofe="Synthetic DNA"
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Sequence 101 from Patent WO0151500.
AX194501
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/gene="AF1461"
6658. .6891
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WEKARITVSTROVERILFITGNICTEAIENTENDENDENAPYGKKRIEMIKNDIPEE
MICHARTASPOSPERIAMICHENGENVENTARIAMIENGALAGARAASQSSEIFRAL
ALSKCKVEHPRILEKLIKEGFEKNPDSRVILVETNYRDSABMINNELSPLEPRVAKEY
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SIGDYVLPERTGIKVIVDSRELRSEVVKHLREIGAKIEIRNLEVADYVVSDRVAVERK
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GNVIARNLLDYFQTIENIATADEEELAKVPKVÇKKIAKRIRRVMTTFYSEAĞFYDSES
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putative"
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                                                         complement (2652. .2723)
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5471. .5542
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gene="tRNA-Thr-1"
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/transl_tak'
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|gene="AF1458"
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PAT 06-FEB-2002
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91.1%; Score 16.4; DB 6; Length 20;
Best Local Similarity 94.4%; Pred. No. 3.1e+03;
Matches 17; Conservative 0; Mismatches 1; Indels
                                       linear
                                                                                                                                                                                   Mond, J.J., Flora, M. and Klinman, D.M.
Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 495 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
1. 20
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                                                                                                                   synthetic construct
synthetic construct
other sequences; artificial sequences.
                                AX352199 20 bp Sequence 495 from Patent WO0193902. AX352199 AX352199.1 GI:18617482
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Description		Abl35611 Immunosti
SUMMARIES	AAC80622 AAS09592 ABL35581 ABL35578 ABL35581 ABL35580 ACC83300 ACC48300 ACC48310 ACC83113 ACC83113 ACC83113 ACC83152 ADD01049 ADD01049 ABL35603 ABL35603	ABL35611
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	21	18	100.0		9	ABL35622		Immunosti
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	24	16.4	91.1	20	9	ABL35584		Immunosti
	25	16.4	91.1		9	ABL35569	5569	Immunosti
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	28	16.4	91.1		8	ACC48311	Acc48311 CpG	oligo
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	33	16.4	91.1		0	ACC83126	Ω	class C
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Š	immc	mogeni	c, cytk	okine re	lea	immunogenic, cytokine release, natural killer cell; NK cell activation;	K cell activa	tion;
ž	cell	media	ted imm	cell-mediated immune response;	nod	se; T-cell response; humoral response	al response;	
Š	B-Ce	all res	(bounge)	antibod	o A	uction;	induction;	vaccine;
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7.5	i mm i	300	immine deficiency. bi	biolo	[ic. antiarthritic	

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

N_Geneseq_16Dec04:*

Database :

geneseqn1980s:* geneseqn1990s:* geneseqn2000s:* immune deficiency, biological warfare agent, cytostatic, antiarthritic, antimicrobial; antiallergic, protozoacide, tuberculostatic, antiatic, antiatic, dermatological; phosphorothioate; 88. 12-APR-2000; 2000WO-US009839. 12-APR-1999; 99US-0128898P. (ISHI/) ISHII K. (VERT/) VERTHELYI D. (KLIN/) KLINMAN D. (ISHI/) ISHII K. WO200061151-A2. 19-OCT-2000. Synthetic.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent. WPI; 2001-006880/01.

Verthelyi D;

Klinman D, Ishii K,

(USSH) US DEPT HEALTH & HUMAN SERVICES.

14-JAN-2000; 2000US-0176115P. 12-JAN-2001; 2001WO-US001122

WO200151500-A1

19-JUL-2001,

Verthelyi D;

Ishii K,

Klinman D,

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The invention relates to novel immunogenic CpG oligodeoxynuclectides (AAC80581-C80723). The oligonuclectide are at least 10 bases long and comprise one of the generic sequences 5-NNNT-CpG-WNNN-3' or 5-RY-CpG-RY optionally have phosphorotchicate linkages which make them more resistant to degradation. The invention also relates to an oligonuclectide delivery complex comprising an oligonuclectide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonuclectide delivery complex. The oligonuclectides of the superior are able to induce a theory or complex. The oligonuclectides are able to induce either a cell-coligonuclectides of the sequence 5'-RY-CpG-RY-3' being able to induce a humoral response or a humoral lesonse. It is thought that after administration, the oligonuclectide acts on antigen-presenting cells colinque to activation of natural killer (RX) cells. A cell-mediated or humoral response and dendritic cells), which then release cytokines, complexing an allergic reaction (preferably asthms). Or an infection, where an immunogenic CpG oligonuclectide is administered either alone or ameliorating an allergic reaction (preferably asthms), or an infection, where an immunogenic CpG oligonuclectide is administered either alone or conditions, and the infections which may be treated include erzema, allergic conditions which may be treated include erzema, allergic conditions which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and protozoal infections either alone or esponse in the treatment of an election which may be treated include viral, conditions, and protozoal infections exposure to an agent of biological warfare. An immunogenic CpG coligonuclectide warfare. An immunogenic CpG coligonuclectide may also be exposure to an agent of biological warfare. An immunogenic cpg and native response is used in attribute and entities one crime response is used an attribute artificancy and symptomy residency and inference age
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Claim 4; Page 30; 46pp; English.
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Best Local Similarity 100.
Matches 18; Conservative
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunoreactive CpG sequence-containing oligonucleotide #42.
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Synthetic

Synthetic.

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or a symptom resulting from exposure to bio-warfare agent in a human induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepstitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus erythematosus and autoimmune diseases such as rheumatoid arthritis and multiple sclerosis, infections including Franciscila, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Bbola, Anthrax and Listeria
                                                                                                                                                                                                                                                                                                  Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                               AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection
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                                                                                                                                                                                                                                                                                                                                                                The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be useful for enhancing an immune response tracating diseases, including pathogenic infection, (non-)malignant trumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomes and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, heparitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                               /note= "optionally thymidine is replaced by uracil to form RNA or DNA/RNA hybrids. Thymidine is linked to at least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                             New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
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Mismatches
           location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                           Example 11; Page 62; 68pp; English.
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                                                                                                                                                                                                                             Klinman DM;
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                                                                                                  WO200193902-A2
                                                                                                                                                                                                                                                                                                                  HIV infection.
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           Key
misc_RNA
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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and an DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Boola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
/*tag= a
/note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 18; DB 6; Length 20; 100.0%; Pred. No. 89;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                                                                                                         Klinman DM;
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                                                                                                                                                                                                                                                                                              07-JUN-2000; 2000US-0209797P.
                                                                                                                                                                                                                                              07-JUN-2001; 2001WO-US018276.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100.
1es 18; Conservative
                                                                                                                                                                                                                                                                                                                                                      (BIOS-) BIOSYNEXUS INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-130570/17.
                                                                                                                                                                                                                                                                                                                                                                                                            Mond JJ, Flora M,
                                                                                                                                  WO200193902-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the invention
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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytckines It can be useful for enhancing an immune response tromaching diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection; allergy; cancer; hypersensitivity; bio-warfare, immunostimulant; antiallergy; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine;
/note= "optionally thymidine is replaced by uracil to form RNA or DNA/RNA hybrids. Thymidine is linked to at least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                                                                               oligonucleotides, useful for enhancing an immune response or inducin cytokines, particularly for treating diseases, e.g. cancer, allergy HIV infection.
                                                                                                                                                                                                                                                                                                                  compositions comprising RNA/DNA hybrid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 18; DB 6; Length 20; 100.0%; Pred. No. 89;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                    Klinman DM;
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                                                                                                                                              07-JUN-2001; 2001WO-US018276
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                                                                                                                                                                                                                   (BIOS-) BIOSYNEXUS INC.
                                                                                                                                                                                                                                                                                                                         New immunostimulatory
                                                                                                                                                                                                                                                                                   WPI; 2002-130570/17.
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Matches 18; Conserv
                                                                                                                                                                                                                                                      Flora M,
                                                                            WO200193902-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the invention
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                                                                                                                                                                                                                                                      Mond JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
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Gaps

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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostet or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhintitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Boola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine; infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antihiflammatory; antibacterial; ss.
                                                                                                                                                                                                                                                     New immunostimulatory compositions comprising RNA/DNA hybrid oligonuclectides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       / Match 100.0%; Score 18; DB 6; Length 20; Local Similarity 100.0%; Pred. No. 89; les 18; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunostimulatory oligonucleotide SEQ ID NO: 514.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                          Example 11; Page 61; 68pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                               Klinman DM;
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                                                                                                   07-JUN-2001; 2001WO-US018276
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                                                                                                                                 07-JUN-2000; 2000US-0209797P
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                                                                                                                                                                 (BIOS-) BIOSYNEXUS INC
                                                                                                                                                                                                                             WPI; 2002-130570/17.
                                                                                                                                                                                                 Flora M,
                                    WO200193902-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the invention
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                                                                   13-DEC-2001
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The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphate bond)-oligodideoxynucleotides (ODMs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CpG oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; cytostatic; immunostimulant; gene therapy; ss.
                                                                              Vaccine for immunizing patient against respiratory syncytial virus, has epitopes of Paramyxoviridae P protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CpG oligodeoxynucleotide D29 used for dendritic cell maturation.
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                                                                                                                                                                                                                                                                                                                                                                                                       DB 6; Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                      89;
                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 18; 100.0%; Pred. No.
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/note= "OTHER= pl
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/mod_base= OTHER
                  Klinman DM;
                                                                                                                                              Claim 4; Page 8; 30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 TGCACCGGTGCAGGGGG 18
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Matches 18; Conservative
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                  Prince G,
                                              WPI; 2002-227118/28
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modified_base
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                  Mond JJ,
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                                                                                                                                                                                                                                                                                                                                                 comprises at least one oligonated comprising both an RNA region and a DNA region. The composition is useful for chancing both an RNA region and or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present equence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                                                                                                                                                      The present invention relates to an immunostimulatory composition, which
                                                                                                                                                                                                                       New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 18; DB 6; Length 20; ilarity 100.0%; Pred. No. 89; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                         Example 11; Page 61; 68pp; English.
                                                                                                                                                           Klinman DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 TGCACCGGTGCAGGGGGG 18
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                                                             07-JUN-2001; 2001WO-US018276.
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01-SEP-2000; 2000US-0229307P.
                                                                                             07-JUN-2000; 2000US-0209797P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                          (BIOS-) BIOSYNEXUS INC.
                                                                                                                                                                                         WPI; 2002-130570/17
                                                                                                                                                           Flora M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 18; Conserv
WO200193902-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the invention
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                              13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                           Mond JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
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                                                                                                                            cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; ostatic; immunostimulant; gene therapy; ss.
Generating mature dendritic cells for tumor immunotherapy or as vaccines for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type oligodeoxynucleotide.
                                                                                                    The present sequence is that of D type CpG oligodeoxynucleotide D29, which is used in a claimed method for generating a mature dendritic cell Precursor, especially a monocyte, with the oligonucleotide. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing immunotherapy, for augmenting an immune response, thus enhancing immunotherapy, for augmenting an immune response to an infection or to to a vaccine, and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature dendritic cells may also be used to produce activated T lymphocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Generating mature dendritic cells for tumor immunotherapy or as vaccines for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  no base"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or no base"
                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CpG oligodeoxynucleotide used for dendritic cell maturation.
                                                                                                                                                                                                                                                                                                              100.0%; Score 18; DB 8; Length 20; 100.0%; Pred. No. 89;
                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or
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/note= "N is any base (especially G)
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  any base (especially G)
                                                                                                                                                                                                                                                                                 Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Verthelyi D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                            Claim 11; Page 44; 69pp; English.
                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                            3 TGCACCGGTGCAGGGGG 20
                                                                                                                                                                                                                                                                                                                                                                          1 TGCACCGGTGCAGGGGGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACC48300 standard; DNA; 20 BP.
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"N is
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-AUG-2001; 2001US-0312190P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-AUG-2003 (first entry)
                                                                                                                                                                                                                                                                                                                             Best_Local Similarity 100.
Matches 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gursel M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-300874/29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003020884-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-MAR-2003,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACC48300;
                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACC48300
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Disclosure; Page 26; 69pp; English.

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The present sequence is that of a D type CpG oligodeoxynucleotide that is an example of claimed D type oligodeoxynucleotides (see ACC48294) of the invention. Mature dendritic cells are obtained by contexting adendritic cells are obtained by contexting adendritic cell precursor, such as amonocyte, with such an oligodeoxynucleotide. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for tumour immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to a celivate the immune system to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; static; immunostimulant; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is that of a CpG oligodeoxynucleotide of the invention. A claimed method for generating dendritic cells involves contacting a dendritic cell precursor, especially a monocyte, with a D type oligodeoxynucleotide (see ACC48294) containing a central unmethylated CpG motif. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for tumour immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature dendritic cells may also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Generating mature dendritic cells for tumor immunotherapy or as vaccines
                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type oligodeoxynucleotide.
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                                                                                                                                                                                                                                                                DB 8; Length 20;
89;
                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                             Sequence 20 BP; 2 A; 4 C; 10 G; 2 T; 0 U; 2 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         to produce activated T lymphocytes
                                                                                                                                                                                                                                                                100.0%; Score 18; 100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 61; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Verthelyi
                                                                                                                                                                                      produce activated T lymphocytes
                                                                                                                                                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-AUG-2001; 2001US-0312190P.
                                                                                                                                                                                                                                                                                                                                           1 TGCACCGGTGCAGGGGGG
                                                                                                                                                                                                                                                                                                                                                                  TGCACCGGTGCAGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACC48313 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                     18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CpG oligodeoxynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Klinman DM, Gursel M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-300874/29.
                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003020884-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACC48313;
                                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
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Gaps

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Mismatches

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18; Conservative

Matches

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В.

ACC83152 standard; DNA; 20

ACC83152

ACC83152;

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100.0%; Pred. No.
Similarity
Best Local
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Gaps . 0 8; Length 20; 0 DB 89; Pred. No. 89; Mismatches 100.0%; Score 18; 100.0%; Pred. No. 8 ö TGCACCGGTGCAGGGGG 18 recaccegrecaeeeee 20 Conservative Local Similarity nes 18; Conserv Query Match Matches g ò

RESULT 12

ACC83118

멾 ACC83118 standard; DNA; 20 ACC83118; D class CpG ODN sequence useful for encapsulating in SSCL, DV29.

(first entry)

27-AUG-2003

Sterically stabilised cationic liposome; SSCL; ODN; oligodeoxynucleotide; tuberculosis; cytokine; leishmaniasis; AIDS-associated Kaposi's tumour; thyroid; cancer; allergy; eczema; allergic rhinitis; coryza; hay fever; ecilstosomiasis; interferon gamma; lupus erythematosus; antimicrobial; asthma; urticaria; autoimmune disease; diabetes; rheumatoid arthritis; CpG motif; interleukin-13; cytostatic; tularemia; malaria; psoriasis; multiple sclerosis; infection; tumour; ss.

Unidentified

WO2003040308-A2.

LS-MAY-2003

29-JUL-2002; 2002WO-US024235

27-JUL-2001; 2001US-0308283P. 25-JUL-2002; 2002US-00206407.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Puri RK; Joshi BH, Ishii KJ, Kawakami K, Gursel I, Klinman DM,

WPI; 2003-482260/45.

Cationic liposome composition for delivering oligodeoxynucleotides including a CpG motif in clinical applications, comprises a cationic lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.

Disclosure; Fig 10C; 110pp; English.

The invention relates to sterically stabilised cationic liposomes (SSCL) which comprises a cationic lipid, a co-lipid, stabilising agent and encapsulating a K type oligodeoxymucleotide (ODN) including a CpG moulf. The invention is useful in pharmaceutical composition for impairing a CpG moulf. Cprediction is useful in pharmaceutical composition for impairing an immune response and including an immune response, which is expression of a cytchine (e.g. innerferon gamma), particularly immunotherapeutic response against tumours or stimulating an invivo or an inn vitro immunotherapeutic response against tumours or stimulating an in vivo or an inn vitro immunotherapeutic response against tumours or stimulating an in vivo or an inn vitro immune cell, and for inducing a immune response against an infectious agent e.g. virus, bacteria and fungus. It is also useful for delivering oligodeoxymucleotides including a CpG motif in clinical applications; for treating infectious diseases (e.g. tularemia, malaria, trancisella, schlatosomiasis, tuberculosis and leishmaniasis), cancer (e.g. solid tumours, AIDS-associated Kaposi's tumour, thyroid cancer cetc), allergy (e.g. eczema, allergic rhinitis or coryza, hay fever, bronchial or allergic asthma, urticaria, food allergies), autoimmune diseases (e.g. diabetes, rheumatoxid arthritis, lupus erythematosus and multiple scietosus and multiple scietosus, rheumatoxid arthritis, lupus erythematosus and multiple scietosus and peoriasis. The present sequence is a D class CpG multiple scietosus and peoriasis. ODN potentially useful for encapsulating in SSCL

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

100.0%; Score 18; DB 9; Length 20;

Query Match

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Sterically stabilised cationic liposome, SSCL; ODN; oligodeoxynucleotide;
                                                                   tuberculodis, cytokine; leishmaniasis, AIDS-associated Kaposi's tumour; thyroid; cancer; allergy; eczema; allergic rhinitis; coryza; hay fever; schistosomiasis; interferon gamma; lupus erythematosus; antimicrobial; asthma; urticaria; autoimmune disease; diabetee; rheumatoid arthritis; CpG motif; interleukin-13; cytostatic; tularemia; malaria; psoriasis; multiple sclerosis; infection; tumour; phosphorothioate backbone; ss.
                                                                                                                                                                                                                                                                                                                                    Puri RK;
                                                                                                                                                                                                                                                                                                                                   Joshi BH,
                                       D class ODN sequence useful for encapsulating in SSCL,
                                                                                                                                                                                                    /note= "Phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                    Kawakami K,
                                                                                                                                                                                                                                                                                                                (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                   lshii KJ,
                                                                                                                                                                                           base= OTHER
                                                                                                                                                                                                                                                                                   27-JUL-2001; 2001US-0308283P.
25-JUL-2002; 2002US-00206407.
                                                                                                                                                                                                                                                                29-JUL-2002; 2002WO-US024235.
                   (first entry)
                                                                                                                                                                                 /*tag= a
                                                                                                                                                                                                                                                                                                                                    Gursel I,
                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-482260/45.
                                                                                                                                                                                                                        WO2003040308-A2
                                                                                                                                                                       modified base
                   27-AUG-2003
                                                                                                                                         Unidentified
                                                                                                                                                                                                                                                                                                                                   DM,
                                                                                                                                                                                                                                            15-MAY-2003.
                                                                                                                                                                                                                                                                                                                                    Klinman
                                                                                                                                                              Key
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The invention relates to sterically stabilised cationic liposomes (SSCL) which comprises a cationic lipid, a co-lipid, stabilialing agent and encapsulating a K type oligodeoxynuclectide (ODN) including a CpG motif. The invention is useful in pharmaceutical composition for impairing growth of a solid tumour cell (e.g. human tumour cell) bearing an interleukin-13 receptor in a subject; for stimulating an immune response, which is expression of a cytokine (e.g. interferon gamma), particularly immunotherapeutic response against tumours or stimulating an in vivo or an in in vitro immune cell, and for inducing an immune response against an in vitro immune cell, bacteria and fungus. It is also useful for delivering oligodeoxynucleotides including a CpG motif in clinical applications, for treating infectious diseases (e.g. tularemia, malaria, francisella, schistosomiasis, tuberculosis and leishmaniasis), cancer (e.g. solid tumours, AIDS-associated Kaposi's tumour, thyroid cancer etc), allergy (e.g. eczema, allergic rhinitis or coryza, hay fever, bronchial or allergic asthma, utticaria, food allergies), autoimmune diseases (e.g. diabetes, rheumatoid arthritis, lupus erythematosus and multiple sclerosis) and psoriasis. The present sequence is a D class ODN

Cationic liposome composition for delivering oligodeoxynucleotides including a CpG motif in clinical applications, comprises a cationic lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.

Example 8; Page 52; 110pp; English.

SXS

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the present invention.
                                                                                                                                                                                                                                                                                                                                                                     26-AUG-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                  ADN96868;
                                                                                                                   Matches
                                                                                                                                                                                                                                                       RESULT 15
                                                                                                                                                                                                                                                                           ADN96868
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  SXS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes a method for inducing the production of vascular endothelial growth factor (VEGF) by a cell comprising contacting the cell with a CPG oligonuclectide and therefore inducing the production of VEGF by the cell. Also described: (1) inducing neovascularisation in a tissue, comprising introducing a CPG oligonucleotide into an area of the tissue where the formation of new blood vessels is desired, and so inducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an area of the subject where angiogenesis is desired, comprising introducing a CPG oligonucleotide to the area, and so promoting angiogenesis in the subject; and (3) screening for an agent that inhibits neovascularisation, comprishing administering a CPG oligonucleotide to a non-human mammal and administering a CPG companied, where inhibition of angiogenesis in the animal indicates that the agent is effective in inhibiting neovascularisation. The CPG oligonucleotides have vulnerary, vasotropic and antiarteriosclerotic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        activities, and can be used in gene therapy. The method and the CpG oligomocleotides can be used in inducing angiogenesis or neovascularisation, such as in subjects with a skin graft, subjects who exhibit male pattern baldness, or subjects who have a wound or who have atherosclerosis or ischaemia. The method may also be used in screening for agents that inhibit neovascularisation. The present sequence represents a CpG oligomucleotide which is used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Inducing the production of vascular endothelial growth factor by a cell, useful for inducing angiogenesis, comprises contacting the cell with a CpG oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                            vascular endothelial growth factor; VEGF; CpG oligonucleotide; neovascularisation; angiogenesis; vulnerary; vasciropic; antiarteriosclerotic; gene therapy; skin graft; male pattern baldness; atherosclerosis; ischaemia; ss.
                                                                                                                     Gaps
                                                                                                                   ;
0
                                                                             100.0%; Score 18; DB 9; Length 20; 100.0%; Pred. No. 89;
                                                                                                                   Indels
                                        Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                     ;
0
    potentially useful for encapsulating in SSCL
                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                 CpG D oligonucleotide SEQ ID NO:13.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYTE-) UNIV TENNESSEE RES CORP
                                                                                                                     ;
                                                                                                                                                            1 TGCACCGGTGCAGGGGGG 18
                                                                                                                                                                                                recaccegrecaegeege 20
                                                                                                                                                                                                                                                                                                  ADD01049 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-DEC-2002; 2002WO-US040955.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-DEC-2001; 2001US-0343457P
                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (USSH ) US DEPT HEALTH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-559138/52.
                                                                                                   Local Similarity
nes 18; Conserv
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                                                                                                                                                                                                                                                                                                                                                                             01-JAN-2004
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                                                                                   Query Match
                                                                                                                       Matches
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tuberculostatic; anti-inflammatory; hepatotropic; cytostatic;
tuberculostatic; anti-inflammatory; hepatotropic; cytostatic;
tuberculogical; bacterial growth inhibitor; immunostimulator;
mumunostimulatory; opportunistic infection;
lentivirus infection; human immunodeficiency virus infection;
lentivirus infection; bacterial infection; fungal infection;
wiral infection; protozoan infection; prion disease; nucleoplasm;
walmonellosis; syphilis; neurosyphilis; tuberculosis;
bacillary angiomatosis; aspergillosis; candidiasis; occidioidomycosis;
cryptococcal meningitis; hepatitis B; histoplasmosis; cryptosporidiosis;
toxoplasmosis; cytomegalovirus; hepatitis; herpes simplex; herpes zoster;
human papillomavirus; molluscum contagiosum; oral hairy leukoplakia;
progressive multifocal leukoencephalopathy; neoplasm; Kapstemic non-Hodgkin's lymphoma; primary central nervous system lymphoma;
Way; genital herpes; HZV; shingles; genital wart; cervical cancer;
munnostimulatory CpG oligonucleotide; ss.
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                                                                                                                                               Gaps
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                                                                                                                                               ö
                                                                     Length 20;
                                                                                                                                                   Indels
                           ... DB 10; 1
Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunostimulatory D CpG oligonucleotide seqid 2.
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                                                                             100.0%; Score 18; 100.0%; Pred. No.
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Best Local Similarity
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us-10-068-160a-13.rng

prion disease, and nucleoplasm in an immunocompromised subject or a subject infected with a lentivirus. The bacterial infections include salmonellosis appropriate the self-should be appliated by appliate and neurosyphilis, tuberculosis and bacillary concidionations, the fungal infections include aspergillosis, candidiasis, cocidioidomycosis, the protococal meningitis, hepatitis B, and histoplasmosis, the protococal infections include cryptosporidiosis, cocidioidomycosis, and infections include cryptosporidiosis, contagiosum, oral hairy leukoplakis and protocomis and progressive multifocal leukoencephalopathy and neoplasma include yytomegalovirus, hepatitis, herpes samplex, herpes zoster, human papilloma virus, molluscum contagiosum, oral hairy leukoplakia and progressive multifocal leukoencephalopathy and neoplasma include Kaposi's sarcoma, systemic non-Hodgkin's lymphoma and primary central nervous system lymphoma. The Hodgkin's lymphoma and primary central nervous system lymphoma. The Hodgkin's lymphoma and primary central nervous system lymphoma. The method stimulates immune responses to any copportunistic infection in immunocompromised subjects. This sequence copportunistic infection in immunocompromised subjects. This sequence corresponse to increase of cytokines from cells of the immune system and elimulate the release of cytokines from cells of the immune system and be used to increase immune response in the method of the invention. %\$

Sequence 20 BP; 2 A; 4 C; 10 G; 2 T; 0 U; 2 Other;

Gaps ö Query Match

100.0%; Score 18; DB 12; Length 20;
Best Local Similarity 100.0%; Pred. No. 89;
Matches 18; Conservative 0; Mismatches 0; Indels

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1 TGCACCGGTGCAGGGGG 18

ò g Search completed: April 29, 2005, 06:26:00 Job time : 183.527 secs

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Title: Perfect score:

Sequence:

OM nucleic

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Scoring table:

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Minimum DB seq Maximum DB seq

Database

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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

E 1 (bases 1 to 594)
S Schlueter.T., Hermanns,J., Weindel,M., Schuette,D., Kranz,H.,
Henrich,J. and Loebbert,R.

D Gog arrayTAG CDNA clone collection
Unpublished (2004)
LION bioscience AG
Waldhoferstrasse 98, D-69123 Heidelberg, Germany
Tel: +49 6221 4038 290
Email: Thomas Schlueter@lionbioscience.com.
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AV108043
qg76c11.x
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tigr-gss-
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CC62260
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BE148995
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| organism="Canis familiaris" |
| forganism="Canis familiaris" |
| full type="MRNA" |
| strain="Beagle" |
| db_xref="taxon:9615" |
| tissue_type="aorta" |
| dev stage="aorta" |
| lab_nost="DH108" |
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                                                                                                             April 29, 2005, 05:15:22 ; Search time 1687.62 Seconds (without alignments) 405.990 Million cell updates/sec
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AQ444154

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              5.1.6
Compugen Ltd.
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              GenCore version
Copyright (c) 1993 - 2005
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                                                                                - nucleic search, using sw model
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CB076094
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A1370313
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Gapop 10.0 , Gapext 1.0
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Maximum Match 100%
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REFERENCE AUTHORS

FEATURES

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ACCESSION

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AW325275 21-SEP-2000 TENU4637 T.cruzi epimastigote normalized cDNA Library Trypanosoma cruzi cDNA clone 25h9 5', mRNA sequence.
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/clone lib="T.cruzi epimastigote normalized cDNA Library"
/note="CDNA library constructed with oligo dt primed epimastigote mRNA and cloned in pt7t318D phagemid with modified polylinker (Pharmacia)"
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AQ444154.3 GI:10130745
GSS.
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Trypanosoma cruzi
Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
Trypanosoma; Schizotrypanum.
1 (bases 1 to 245)
Porcel, B.M., Tran, A.N., Tammi, M., Nyarady, Z., Rydaker, M.,
Urmenyi, T.P., Rondinelli, E., Pettersson, U., Andersson, B. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene survey of the pathogenic protozoan Trypanosoma cruzi
Genome Res. 10 (8), 1103-1107 (2000)
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Trypanosoma cruzi
Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Assistance of Medical Genetics
Uppsala University
Blomedical Center, Box 589, S-751 23 Uppsala, Sweden
Brax: 46 18 52 68 49
Email: lena.aslund@medgen.uu.se
Seq primer: T7 primer
High quality sequence stop: 245.
High quality sequence stop: 245.
             Length 54;
                                                        1; Indels
             91.1%; Score 16.4; DB 9;
94.4%; Pred. No. 2.3e+03;
iive 0; Mismatches 1;
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/organism="Trypanosoma cruzi"
/mol type="mRNA"
/strain="C1-Brenner"
/db xref="taxn:5693"
/clone="25h9"
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Local Similarity 94.4%
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Mus musculus (house mouse)

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae, Murinae; Mus.

E 1 (bases 1 to 54)

Adams, D.-J., Biggs, P.-J., Cox, A.V., Davies, R.M., van der Weyden, L.,

Stadms, D.-J., Smith, J., Plumb, R.W., Taylor, R.G., Nishijima, I., Yu, Y.,

Rogers, J. and Bradley, A.

Direct Submission

Lordin, Call 18A, UK. http://www.sanger.ac.uk/MICER

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR086950 54 bp DNA linear GSS 05-JUL-2004 Reverse strand read from insert in 3'HPRT insertion targeting and chromosome engineering clone MHPP370019, genomic survey sequence. CR086950
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0
                                                                                                                                             Euca mays

Butaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.

l Chases 1 to 840)

Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Citek, R.W., Numberg, A., Robbins, D. and Lakey, N.
Unpublished (2002)
Other GSSS: OGODZ26TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
OGODZ26TV ZM_0.7_1.5_KB Zea mays genomic clone ZMMBMa0696F04, genomic survey sequence.
CG271799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:4577"
/clone="zxmBMAa0696F04"
/clone=lb=zxm 0.7.1.5.KB"
/note="Vector: pBcSk-; Site 1: HincII; 0.7-1.5 kb
methylation filtered genomic DNA library"
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                                                                                                                                                                                                                                                                                                                                                                                                                  9712 Medical Center Drive, Rockville, MD 20850, USA Tel: 301-838-5843
Fax: 301-838-0208
Email: whitelaw@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94.4%; Score 17; DB 9; Length 840; 100.0%; Pred. No. 1.2e+03; ive 0; Mismatches 0; Indels
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/organism="Mus musculus"
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/db_xref="taxon:10090"
/clone="MHPP370019"
/clone_lib="MHPP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Zea mays"
/mol_type="genomic DNA"
/strain="B73"
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                                                                      CG271799.1 GI:34183940
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Class: sheared ends.
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Best Local Similarity 100.
Matches 17; Conservative
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                                                                                                                 Zea mays
                                                                                                                                        Zеа шаув
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CR086950/c
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      DEFINITION
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AUTHORS
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ACCESSION

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FEATURES

ORIGIN

AUTHORS TITLE

REFERENCE

JOURNAL MEDLINE PUBMED

COMMENT

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/dev stage="pre-anthesis; Stage 2"
/clone_lib="Hedyotis terminalis flower - Stage 2 (NYBG)"
/note="Organ: flower; Vector: pBK-CMV; Site_1: XhOI;
Site_2: ECO RI; Date: Completed 12/18/01. Submitted to
CSHL 12/21/01 Library: Stratagene ZAP Express CDNA
Synthesis Kit. The library was size-fractionated to enrich
for large inserts. Sample: collected on the island of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Spermacoceae, Hedyotis.

1 (bases 1 to 440)
Levesque, W. D. Twigg, R.W., Motley, T., Katari, M.S., Dedhia, N.N.,
Dedy Shaughnessy, A.L., Balija, V., Martienssen, R.A., McCombie, R.W.,
Benfey, P. and Stevenson, D.
Expressed tag sequences from Hedyotis centranthoides flower - Stage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CB087291 Hedyotis centranthoides flower - Stage 2 (NYBG) Hedyotis centranthoides contranthoides cDNA clone hj98911, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
asterids, lamiids, Gentianales, Rubiaceae, Rubioideae,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="hj98g11"
/dev_stage="pre-anthesis; Stage 2"
/clone_lib="Hedyotis centranthoides flower - Stage 2
(WTRG) "
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91.1%; Score 16.4; DB 6; Length 339; 94.4%; Pred. No. 2.4e+03; ive 0; Mismatches . 1; Indels
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Conteact: W. Richard McCombie
Clita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tal: 516 367 8884
Fax: 516 367 8874

    .440
    /organism="Hedyotis centranthoides"

                                                                                                                                                                                                                               'organism="Hedyotis terminalis"
                       Fax: 516 367 8874
Email: mccombie@cshl.org
Plate: hf37 row: c column: 06
Seq primer: -21M13UnivRev
High quality sequence stop: 339.
                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="taxon:219667"
/clone="hf37c06"
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/db_xref="taxon:219666"
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Plate: hj98 row: g column: 11
Seg primer: -21M13UnivRev
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Hedyotis centranthoides
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     Tel: 516 367 8884
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17; Conserv
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                                                                                                                                                                                                                                                                                                                                                                  Av. Gral Paz S/N, INTI, Edificio 24, B 1650 KNA, San Martin, Buenos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /cell type="epimastigote"
/clone_lib="Trypanosoma cruzi random genomic library"
/note="Vector: pBS(-) (Stratagene); T. cruzi DNA was
randomly sheared using a nebulizer and the 1 to 2 Kb range
was gel purified and cloned into the dephosphoryated
HinclI site of the vector"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CB076094 339 bp mRNA linear EST 24-JAN-2003 hf37c06.g1 Hedyotis terminalis flower - Stage 2 (NYBG) Hedyotis terminalis cDNA clone hf37c06, mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                          Aires, Argentina
Tel: (54-11) 4580/7255/7
Fax: (54-11) 4752-9639
Eaxi: (54-11) 4752-9639
Eaxi: deanchez@aib.unsam.edu.ar
Sequences were basecalled with phred and vector was masked with
crossmatch (see http://genome.washington.edu). Sequences were then
trimmed from both ends to remove low quality bases and masked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnollophyta; eudicotyledons; core eudicots; Saterids; Lamidas; Gentlanales; Rubiaceae; Rubioideae; Spermacoceae; Hedyotis.

1 (bases 1 to 339)
1 (bases 1 to 339)
2 (bases 1 to 319)
3 (bases 1 to 319)
4 (bases 1 to 319)
5 (bases 1 to 319)
6 (baughnessy, M. L., Ballja, W., Motley, T., Katari, M.S., Dedhia, N.N., Benfey, P. and Stevenson, D. Benfey, P. and Stevenson, D. Spressed tag sequences from Hedyotis terminalis flower - Stage 2
                                              Aguato, F., Verdin, R., Frasch, A.C.C. and Sanchez, D.O.
A random sequencing approach for the analysis of the trypanosoma cruzi genome: general structure, large gene and repetitive DNA families, and gene discovery
Genome Res. 10 (12), 1996-2005 (2000)
                                                                                                                                                                                                                                                                                                           Instituto de Investigaciones Biotecnologicas (Univ. Nac. de Gral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                    On Sep 14, 2000 this sequence version replaced gi:9372108.
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Pred. No. 2.4e+03;
0; Mismatches 1; Indels
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Contact: W. Richard McCombie
Lita Annenbersp Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Trypanosoma c
/mol_type="genomic DNA"
/strain="CL-Brener"
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/clone="G10L7"
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Trypanosoma; Schizotrypanum.
1 (bases 1 to 277)
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                                                                                                                                                                                                                                                                                    Contact: Sanchez D.O.
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Hedyotis terminalis
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Best Local Similarity 94.4
Matches 17; Conservative
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Class: shotgun
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ORIGIN

RESULT 6 CB076094/c DEFINITION

ò 셤 SOURCE ORGANISM

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Homo sapiens
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Best Local Simi
Matches 17;
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AUTHORS
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Levesque,M.P., Twigg,R.W., Motley,T., Katari,M.S., Dedhia,N.N., O'Shaughnessy,A.L., Balija,V., Martienssen,R.A., McCombie,R.W., Benegy,P. and Stevenson,D. Expressed tag sequences from Hedyotis centranthoides flower - Stage
                                                                                                                                                                                                                                                                                                                                 mRNA linear EST 27-JAN-2003
flower - Stage 2 (NYBG) Hedyotis
CSHL 12/21/01 Library: Stratagene ZAP Express cDNA Synthesis Kit. The library was size-fractionated to enrich for large inserts. Sample: collected on the island of Hawaii, Hawaii, NYBG herbarium voucher TM2563"
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Hedyotis centranthoides
Bukaryota, Viridiplantee, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots;
asterids, lamiids, Gentianales, Rubiaceae, Rubioideae,
Spermacoceae, Hedyotis.
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/clone lib="Hedyotis centranthoides flower - Stage 2
(NYBG)"
                                                                                                                                                            Gaps
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pred. No. 2.4e+03;
0; Mismatches 1; Indels
                                                                                                                      Length 440;
                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                   CB087214 linear bj97e04.gl Hedyotis centranthoides flower - Stage centranthoides CDNA clone hj97e04, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2003)
Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
Tel: 516 367 8884
Fax: 516 367 8874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .509
/organism="Hedyotis centranthoides"
/mol_type="mRNA"
/db xref="taxon:219666"
/clone="hj97e04"
                                                                                                                  Query Match
91.1%; Score 16.4; DB 6;
Best Local Similarity 94.4%; Pred. No. 2.4e+03;
Matches 17; Conservative 0; Mismatches 1;
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Plate: hj97 row: e column: 04
Seq primer: -21Ml3UnivRev
High quality sequence stop: 509.
Location/Qualifiers
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Best Local Similarity 94.4%;
Matches 17; Conservative
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KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                         CB087214/c
                                                                                                                                                                                                                                                                                                                                                            DEFINITION
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Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D., Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NGI-CSAP clone distribution information can be
found through the I.M.A.G.B. Consortium/LINL at:
www-bio.llnl.gov/bbrp/lmage/image.html
Insert Length: 1872 Std Error: 0.00
Seq primer: -400P from Gibco.
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Hedyotis centranthoides
Hedyotis centranthoides
Bukaryota, Viridiplantee, Streptophyta; Embryophyta; Tracheophyta;
Bukaryota, Wisidiplantee, Streptophyta; Core eudicots,
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Spermacoceae, Hedyotis.

1 (bases Hedyotis.
1 (bases 1 to 598)
Levesque, M.P., Twigg, R.W., Motley, T., Katari, M.S., Dedhia, N.N.,
O'Shaudhnessy, A.L., Ballija, V., Martienssen, R.A., McCombie, R.W.,
Expressed tag sequences from Hedyotis centranthoides flower - Stage
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AI370313

4V76e01.X1 NCI CGAP Utl Homo sapiens CDNA clone IMAGE:1987512 3' similar to TR:Q13045 Q13045 FLII ;, mRNA sequence.
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/tissue type="well-differentiated endometrial
denocarcinoma, 7 pooled tumors"
/lab_host="DH10B"
/clone lib="NOT GGAP_Ut1"
/note="Organ: uferus; Vector: pCMV-SPORT6; Site 1: SalI;
Site 2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.75 kb. Life Technologies catalog #:
11538-014"
                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I Dases 1 to 52)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Pred. No. 2.4e+03;
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Location/Qualifiers
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/db_xref="taxon:9606"
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AI370313.1 GI:4149066
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/ issue_transpe="Epithelial, Muscle"
//drs feage="Lactating, Neonatal"
//dab_host="DH10B TonA"
//dloine_lib=TBARC_BROV"
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Single pass sequencing. Bases called and trimmed with phred
0.000925 using options -trim_alt '' -trim_fasta. Vector identified
by cross match using options -minmatch 12 -minscore 18
Plate: 27 row: I column: 18
Seq primer: CCTATTAGGTGACACTATAGAAC
High quality sequence stops: 665.
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Baumann, K.G., Baldwin, R.L., Sonstegard, T.S., Van Tassell, C.P. and Matukumalli, L.K.
Construction and Analysis of a cDNA Library Generated From Intestinal Muscle and Epithelial Tissues of Holstein Cattle Unpublished (2004)
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Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
Bovinae, Bos.
                                                                                                                                                                                                                                                                                                                                                              Gapa
                                                                                                                   /lab_host="DH10B"
/loone_llb="ZMMBBB"
/note="Wector: pBeloBAC11; Site_1: HindIII; Site_2:
HindIII; Zea mays L. 88p. mays"
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4122892 BARC 8BOV Bos taurus cDNA clone 8BOV_27118 5', mRNA
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                                                                                                                                                                                                                                                                                                   Length 610;
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Tel: 3015048604
                                                                                                                                                                                                                                                                                                Score 16.4; DB 9;
Pred. No. 2.4e+03;
0; Mismatches 1;
/mol_type="genomic DNA"
/cultivar="B73"
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                                                           /db_xref="taxon:4577"
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94.4%;
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Best Local Similarity 94.4*
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CN788545
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Organ: flower; Vector: pBK-CMV; Site_1: XhoI; Site_2: Eco RI; Date: Completed 12/18/01. Submitted to CSHL 12/21/01 Library: Stratagene ZAP Express CDNA Synthesis Kit. The library was size-fractionated to enrich for large inserts. Sample: collected on the island of Hawaii, Hawaii; NYBG herbarium voucher TM2563"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
1 (bases 1 to 610)
Yu,Y., Kim, H.R., Hatfield,J., Soderlund,C., Bharti,A.K., Messing,J.
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ZMMBBb0292G11.f ZMMBBb Zea mays genomic clone ZMMBBb0292G11 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dev stage="pre-anthesis; Stage 2"
/clone lib="Hedyotis centranthoides flower - Stage 2
(NYBG)"
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Unpublished (2003)
Contact: Rod Wing
Anizone Bronarics Institute
University of Arizona
Biological Sciences West, 448A, P.O. Box 210088, Tucson, AZ
85721-0088, USA
Tel: 520 626 3967
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91.1%; Score 16.4; DB 6; Length 598;
Best Local Similarity 94.4%; Pred. No. 2.4e+03;
Matches 17; Conservative 0; Mismatches 1; Indels (
               Unpublished (2003)
Contact: W. Richard McCombie
Lita Annenberg Hazen Genome Sequencing Center
Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8874
Fax: 516 367 8874
Email: mccombie@cshl.org
Plate: hk03 row: f column: 05
Seq primer: -21M13UnivRev
High quality sequence stop: 598.

    598
    /organism="Hedyotis centranthoides"

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PCR PRimers
FORWARD: T7
BACKWARD: M13r
Plate: 0292 row: G column: 11
Seq primer: T7
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
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/organism="Zea mays"
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CG692380
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CG692380
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/db_xxef="texaon:7165"
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/lab_host="blub"
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/clone lib="A.Gam.ad.cDNA1"
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cDNA inserts >500 bp cloned directionally into pSport 1.
Not 1 site is 3'. Clones available through the Malaria Research and Reference Reagent Resource Center
(www.malaria.mr4.org)."
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Anopheles gambiae
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
                                                                                                                                                                                                                                                                                                                                                  1. .692
//organism="Anopheles gambiae"
/mol type="mRNA"
/strain="RSP-ST (Reduced susc. to Permethrin - std.
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17000687447901 A.Gam.ad.cDNA1 Anopheles gambiae cDNA clone
19600449620865 5', mRNA sequence.
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I (bases 1 to 708)
Holt, R.A., Lin, J.-J., Murphy, S.D., Evans, C.A., Kraft, C.L., Charlab, R., Collins, F.H., Venter, J.C. and Hoffman, S.L. Celera Anopheles gambiae EST project
Contact: Holt R.A.
Contact: Holt R.A.
Celera Genomics
                                                Holt, R.A., Lin, J.-J., Murphy, S.D., Evans, C.A., Kraft, C.L., Halt, R.A., Lin, J.-J., Murphy, S.D., Evans, C.A., Kraft, C.L., Charlab, R., Collins, F.H., Venter, J.C. and Hoffman, S.L. Celera Anopheles gambiae EST project
Contact: Holt R.A.
Celera Genomics
F. W. Gebern Genomics
Tel: 2404533181
Fax: 2404534580
      Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
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91.1%; Score 16.4; DB 4; Length 692;
Best Local Similarity 94.4%; Pred. No. 2.4e+03;
Matches 17; Conservative 0; Mismatches 1; Indels
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Tel: 2404533151
Fax: 2404534580

    . 708
    /organism="Anopheles gambiae"
/mol_type="mRNA"

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Plate: NU01004NBU row: H
Seg primer: M13 Reverse.
                                                                                                                                                                                                                                                               Email: HoltRA@celera.com
Plate: NU01004ABH row: H
Seq primer: M13 Reverse.
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/note="Vector: pSport1; Site_1: Sal1; Site_2: Not1; Whole adult mosquitoes (mixed sex) frozen on liquid nitrogen.
CONA inserts >500 bp cloned directionally into pSport 1.
Not 1 site is 3'. Clones available through the Malaria Research and Reference Reagent Resource Center (www.malaria.mr4.org)."
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                                       Gaps
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Anopheles gambiae
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neopte<u>r</u>a; Endopterygota; Diptera; Nematocera; Culicoidea;
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17000687442189 A.Gam.ad.cDNA1 Anopheles gambiae cDNA clone
19600449668094 5', mRNA sequence.
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17000687491457 A.Gam.ad.cDNA1 Anopheles gambiae cDNA clone
19600449632784 5', mRNA sequence.
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Contact: Holt R.A.
Celera Genomics
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                                       Indels
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Anopheles gambiae
Pred. No. 2.4e+03;
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Tel: 2404533151
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/mol type="mRNA"
/strain="RSP-ST (Reduced susc.
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Plate: NUGlO4AAX row: I column:
Seq primer: M13 Reverse.
Location/Qualifiers
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94.4%;
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                      94.48;
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EST 25-FEB-2002

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chromosome)"

(db xref="taxon 7165"

/clone="19600499620865"

/clone="19600499620865"

/dev gtage="Adult"

/lab_host="DH10b"

/clone="Vector: pSport1; Site_1: Sal1; Site_2: Not1; Whole adult mosquitoes (mixed sex) frozen on liquid nitrogen.

cDNA inserts >500 bp cloned directionally into pSport 1.

Not 1 site is 3'. Clones available through the Malaria Research and Reference Reagent Resource Center

(www.malaria.mr4.org)."
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/strain="RSP-ST (Reduced susc. to Permethrin - std.
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Search completed: April 29, 2005, 11:55:17 Job time : 1689.62 secs

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NS-09-90-016-19926

| Sequence 19926, Application US/09949016
| Sequence 19926, Application US/09949016
| Patent No. 6812319
| Patent No. 6812319
| TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
| FILE REFERENCE: CLO01307
| CURRENT APPLICATION NUMBER: US/09/949,016
| CURRENT PILING DATE: 2000-04-14
| PRIOR APPLICATION NUMBER: 60/241,755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; LOCATION: (1)...(7353)
; OTHER INFORMATION: n = A,T,C or G
US-09-949-016-14895
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ilarity 94.1%;
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Best Local Similarity
Matches 16; Conservat
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US-09-949-016-14895/c
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ORGANISM: Human
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Sequence 26092, A
Sequence 26093, A
Sequence 26094, A
Sequence 46188, A
Sequence 198863,
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13071, A
3, Appli
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7, App
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17398, A
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Sequence 201687,
Sequence 264, App
Sequence 6080, Ap
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Sequence 1, Appl
Sequence 17398,
                                                                                             April 29, 2005, 05:17:55 ; Search time 52.6622 Seconds (without alignments) 559.282 Million cell updates/sec
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/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
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/cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-949-016-19926
US-09-949-016-26093
US-09-949-016-26093
US-09-949-016-26094
US-09-949-016-198864
US-09-949-016-198864
US-09-949-016-198864
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US-09-949-016-198865
US-09-949-016-198865
US-09-170-496D-207
US-09-953-181A-4
US-09-949-016-11849
US-09-949-016-13414
US-09-949-016-134184
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Maximum Match 100%
Listing first 45 summaries
                                                                 nucleic search, using sw model
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Maximum DB seq length: 200000000
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Match Length
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22928
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24720
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139150
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Score 15.4; DB 4; Length 7 Pred. No. 3.6e+02; 0; Mismatches 1; Indele

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Sequence 14895, Application US/09949016
; Sequence 14895, Application US/09949016
; Patent. No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VANTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; FILE REFERENCE: CLOOU3307
; CURRENT APLICATION NUMBER: 60/241, 755
; PRIOR APPLICATION NUMBER: 60/241, 755
; PRIOR PLILING DATE: 2000-10-20
; PRIOR PLILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FREESE for Windows Version 4.0
; SEQ ID NO 14895
; LENGTHH 7353
  12147, A
1385, APP
117679,
117679,
117679,
1268, APP
668, APP
15001, A
12087, AP
15749, A
15749, A
1555, AP
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Sequence
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US-09-949-016-12147
US-09-949-016-17361
US-09-913-2944-8185
US-09-902-540-8190
US-09-902-540-8180
US-09-902-540-5188
US-09-902-540-5188
US-09-949-016-15001
US-09-949-016-15001
US-09-949-016-15749
US-09-949-016-15749
US-09-949-016-17230
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8822.2
8800.0
8800.0
777.8
880.0
777.8
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; TYPE: DNA
; ORGANISM: Human
US-09-949-016-26094
                                                                            TYPE: DNA
CRGANISM: Human
US-09-949-016-26093
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Sequence 2602, Application US/09949016

Patent NO. 6812339

GENERAL INFORMATION:
TITLE OF INVENTER, U. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CLOGO1307

CURRENT PAPLICATION NUMBER: US/09/949,016

CURRENT PAPLICATION NUMBER: US/02/14,755

PRIOR PILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FeatsEQ for Windows Version 4.0

SEQ ID NO 26092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 26093, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APLICANT: VENTER, J. Craig et al.
APLICANT: VENTER, D. Craig et al.
APLICE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307
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                                                                                                                                                                                                                                                             Score 14.8; DB 4;
Pred. No. 6.8e+02;
0; Mismatches 2;
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Pred. No. 6.8e+02;
0; Mismatches 2
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19926
LENGTH: 601
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CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PLING DATE: 2000-10-03
PRIOR PLING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
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ilarity 88.9%;
Conservative
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Best Local Similarity
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Best Local Similarity
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US-09-949-016-26092
                                                                                                                                                                                                         ORGANISM: Human
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                                                                                                                                                                                        TYPE: DNA
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Sequence 46188, Application US/09949016

Sequence 46188, Application US/09949016

Patent No. 6812319

GENERAL INFORMATION:

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TILE REFERENCE: CLO01307

CURRENT FAPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARES: FRAILSEQ for Windows Version 4.0

LENGTH: 601
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; Sequence 26044, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, V. Craig et al.
APPLICANT: VENTER, V. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; TITLE OF INVENTION: WIMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/231,768
; PRIOR APPLICATION NUMBER: 60/231,768
; PRIOR FILING DATE: 2000-10-20
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTHARE: FREESEQ for Windows Version 4.0
; SOFTHARE: FREESEQ for Windows Version 4.0
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SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 26093 LENGTH: 601
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Best Local Similarity 88...
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Best Local Similarity 88.9°
Matches 16; Conservative
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Sequence 201687, Application US/09949016
Sequence 201687, Application US/09949016
Patent No. 6812339
GENERAL INPORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: C1001307
CURRENT FILING DATE: 2000-04-14
PRIOR PILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/231,755
PRIOR PILING DATE: 2000-10-03
PRIOR APLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-00-08
PRIOR APLICATION NUMBER: 60/231,498
NUMBER OF SEQ ID NOS: 207012
SEQ ID NOS: 207012
SEQ ID NOS: 207012
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   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Indels
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   2;
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88.9%; Pred. No. 6.8e+02;
iive 0; Mismatches 2;
   Mismatches
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                                                                                                                                                                   Sequence 198865, Application US/09949016
Patent No. 6812339
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Best Local Similarity 88.9
   16; Conservative
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Best Local Similarity
Matches 16; Conserv
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ORGANISM: Human
   Matches
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Sequence 198864, Application US/09949016

Patent No. 6812339

GENERAL INVENTANTION: DOLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR PLILING DATE: 2000-10-20

PRIOR PLILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: PSECSEQ for Windows Version 4.0

SEQ ID NO 198864
                                                                                                                                                                                                                                    VENDERAL INFORMATION:

Sequence 19863, Application US/09949016

Sequence 19863, Application US/09949016

Sequence 19863, Application US/09949016

Sequence 19863, Application US/09949016

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR PILING DATE: 2000-10-20

PRIOR PILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-0-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FREETENCE OF WINDOWS VERSION 4.0
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                                                   Query Match
82.2%; Score 14.8; DB 4; Length 601;
Best Local Similarity 88.9%; Pred. No. 6.8e+02;
Matches 16; Conservative 0; Mismatches 2; Indels
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Pred. No. 6.8e+02;
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Pred. No. 6.8e+02;
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Mismatches
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Best Local Similarity 88.9
Matches 16; Conservative
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Best Local Similarity
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; ORGANISM: Human
US-09-949-016-46188
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ORGANISM: Human
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LENGTH: 601
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1 TGCACCGGTGCAGGGGG 18
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Sequence 6833447

GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Goldman, Barry S.
APPLICANT: Blater, Steven C.
APPLICANT: Blater, Steven C.
APPLICANT: Blater, Steven C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof TILE REFERENCE: 38-10(15849)B
CURRENT APPLICATION NUMBER: US/09/902,540
CURRENT FILING DATE: 2000-07-10
PRIOR FILING DATE: 2000-07-10
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 6080
US-09-902-540-264

Sequence 264, Application US/09902540

Sequence 264, Application US/09902540

Patent NO. 683347

GENERAL INFORMATION:
APPLICANT: Gldman, Barry S.
APPLICANT: Blatch, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof;
FILE REPREMENT = 2001-07-10
CURRENT PILING DATE: 2001-07-10
PRIOR FILING DATE: 2001-07-10
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 264
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Pred. No. 6.8e+02;
0; Mismatches 2; Indels 0;
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APPLICANT: HINUMA, SHUJI
APPLICANT: FUKUSUMI, SHOJI
APPLICANT: KAWAMTA, YUJI
TITLE OF INVENTION: NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/08959381A
Patent No. 6048711
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Best Local Similarity 88.9%;
Matches 16; Conservative (
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88.9%;
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US-09-902-540-264
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Best Local Similarity 88.9
Matches 16; Conservative
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US-08-959-381A-3/c
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RESULT 14

US-09-170-496D-81/C

US-09-170-496D-81/C

Paquence 8. 4555339

GENERAL INFORMATION:
APPLICANT: Behan, Dominic P.
APPLICANT: Chalmers, Derek T.
APPLICANT: Chalmers, Derek T.
APPLICANT: Chan W.
TITLE OF INVENTION: No. 6555339-Endogenous, Constitutively Activated Human G Protein TITLE OF INVENTION: NOWBER: US/09/170,496D

CURRENT FILING DATE: 1998-10-13

NUMBER OF SEQ ID NOS: 294

SEQ ID NO 81

LENGTH: 1446
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                                                                                                                                                            COUNTY: USA
ZIP: 19482

COMPUTER READABLE FORM:
MEDION TYPE: Diskette COMPUTER: IBM Compatible OPERATING SYSTEM: DOS
SOFTWARE: FastENG for Windows Version 2.0
GURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/959,381A
FILING DATE: 28-OCT-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 28-OCT-1997
CLASSIFICATION NUMBER: 28-OCT-196
FILING DATE: 29-OCT-1996
FILING DATE: 29-OCT-1996
FILING DATE: 29-OCT-1996
FILING DATE: 29-OCT-1996
TORNEY/AGENT INFORMATION:
NAME: PRESENCE/DOCKET NUMBER: 23,031
REFERENCE/DOCKET NUMBER: 23,031
TELEPHONE: 610-407-0700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
TITLE OF INVENTION: POLYNUCLEOTIDES NUMBER OF SEQUENCES: 15 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 TGCACCGGTGCAGGGGG 18
                                                            ADDRESSEE: Ratner & Prestia STREET: P.O. Box 980 CITY: Valley Forge STATE: PA COUNTRY: USA
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
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TYPE: nucleic acid
STRANDEDNESS: single
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Best Local Similarity 88.9
Matches 16; Conservative
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Best Local Similarity 88.9
Marches 16; Conservative
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; ORGANISM: Homo sapiens
US-09-170-496D-81
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RESULT 15

US-09-170-496D-207/C

Sequence 207, Application US/09170496D

Patent No. 6555339

GENERAL INFORMATION:

APPLICANT: Behan, Dominic P.

APPLICANT: Liaw, Chen W.

TITLE OF INVENTION: Receptors

TITLE OF INVENTION: Receptors

TITLE OF INVENTION NUMBER: US/09/170,496D

CURRENT APPLICATION NUMBER: US/09/170,496D

CURRENT PILING DATE: 1998-10-13

SOFTWARE: Patentin version 3.1

SEQ ID NO 207

LENGTH: 1446

TYPE: DNA

ORGANISM: Homo sapiens

US-09-170-496D-207
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94 TGCCCAGGTGCAGGGGG 77
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Search completed: April 29, 2005, 12:02:40 Job time : 54.7872 secs

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                                                                                                                                                                                April 29, 2005, 06:00:59; Search time 241.419 Seconds (without alignments) 453.893 Million cell updates/sec
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2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
4: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
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16: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
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17: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
18: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
19: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
10: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
11: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
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US-09-874-991C-496
US-09-874-991C-504
US-09-874-991C-514
US-09-874-991C-514
US-10-668-160-2
US-10-194-035-42
US-10-166-022-2
US-110-666-022-2
US-110-666-022-2
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GenCore version
Copyright (c) 1993 - 2005
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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Maximum DB seq length: 200000000
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Sequence 6, Appli Sequence 19, Appl Sequence 13, Appl	0 0 52	53.	15087	Sequence 495, App Sequence 499, App	506,	543,	58,	101	Sequence 17, Appl Sequence 26, Appl	27,	23,	516,	520,	528,	532,	equence 22,	7108	Sequence 1439, Ap	15540,	46784,	equence 46784,	Seguence 168719,
10-486-755-6 10-486-755-1 10-499-597-1	09-874-991C- 09-874-991C-	-09-874-991C-537 -09-874-991C-548	-10-425-115-150 -10-425-115-169	-09-874-991C-	09-874-991C-50 09-874-991C-51	-09-874-991C-54	-10-068-160-5 -10-068-160-5	-10-194-035-1	-10-486-755 -10-486-755	-10-486-755-2	597-2	-09-874-991C-51	-09-874-991C-5	-09-874-991C-52	-09-874-991C-53	-10-194-035-22	-10-437-963-71	9-764-891-1439	-10-437-963-1554	-10-027-632-4678	-10-027-632-4678	US-10-425-115-168719
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ALIGNMENTS

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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: SECRETARY, DEPRATMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
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CURRENT FILING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
           ; Sequence 13, Application US/10068160; Publication No. US20030060440A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; OTHER INFORMATION: Oligonucleotide US-10-068-160-13
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Best Local Similarity
Matches 18; Conserv
US-10-068-160-13
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LENGTH: 18
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SEQ ID NO 514
LENGTH: 20
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                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR US-09-874-991C-496
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APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTITULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR APPLICATION NUMBER: 60/209,797
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN Ver. 2.1
                                                                                                APPLICANT: FORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: 08/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR FPLING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
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                 Sequence 496, Application US/09874991C
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ORGANISM: Artificial Sequence
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                                       Publication No. US20040052763A1
GENERAL INFORMATION:
APPLICANT: MOND, JAMES J.
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Matches 18; Conserv
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Best Local Similarity
Matches 18; Conserv
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US-09-874-991C-496
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LENGTH: 20
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LENGTH: 20
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; Sequence 507, Application US/09874991C; Publication No. US20040052763A1 GENERAL INFORMATION: APPLICANT: MONU, JAMES J.

RESULT 4 US-09-874-991C-507

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US-09-874-991C-514

Sequence 514, Application US/09874991C

PUBLICATION NO. US20040052763A1

GENERAL INFORMATION:

APPLICANT: MOND, JAMES J.

APPLICANT: FLORA, MICHAEL

TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES

FILE REFERENCE: 07787.0042-0

CURRENT APPLICATION NUMBER: US/09/874,991C

CURRENT FLING DATE: 2000-06-07

PRIOR PLILING DATE: 2000-06-07

PRIOR PLILING DATE: 2000-06-07

NUMBER OF SEQ ID NOS: 620

SOFTWARE: PETCHILIN UNCT: 2.1
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APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: FLINMAN, DENNIS M.
IIILE OF INVENTION: IMMUNOSIIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 18; DB 11; Length 20; Best Local Similarity 100.0%; Pred. No. 50; Matches 18; Conservative 0; Mismatches 0; Indels
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100.0%; Pred. No. 50;
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Artificial Sequence
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OTHER INFORMATION: synthetic
        NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 42
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: SECRETARY, DEFRARM OF HEALTH AND HUMAN SERVICES
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE FILE REPRENCE: 4239-64,996
CURRENT APPLICATION NUMBER: 60/128,898
PRIOR PLLING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PALCHLIN VERSION 3.1
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APPLICANT: KILNMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: VBETHELYI, Daniela
APPLICANT: VBETHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE PILE REFERENCE: 4239-63317
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                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR US-09-874-991C-540
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PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 42, Application US/10194035
Publication No. US20030144229A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: Oligonucleotide US-10-068-160-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/10068160 Publication No. US20030060440A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCACCGGTGCAGGGGG 20
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                                                                                                                                            TYPE: DNA ORGANISM: Artificial Sequence
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PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN VEY. 2.1
SEQ ID NO 540
LENGTH: 20
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LENGTH: 20
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Sequence 2, Application US/10666022;
Publication No. US20040105872A1
GENERAL INPORMATION:
APPLICANT: The Government of the United States of America, as represented by the APPLICANT: Secretary of the Department of Health and Human Services
APPLICANT: Klinman, Dennis M.
APPLICANT: Klinman, Dennis M.
APPLICANT: Wetchely, Daniela
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
TITLE OF INVENTION WUMBER: US 60/411,944
PRIOR APPLICATION NUMBER: US 60/411,944
SPRIOR FILING DATE: 2002-09-18
NUMBER OF SEQ ID NOS: 181
SOFTWARE: Patentin version 3.1
SEQ ID NO 2.
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TITLE OF INVENTION: METHOD OF TREATING AND PREVENTING INFECTIONS IN IMMUNOCOMPROMISE
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
FILE REFERENCE 4239-66899
CURRENT APPLICATION NUMBER: US/10/666,022
CURRENT PILING DATE: 2003-09-17
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                                                   ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-42
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100.0%; Score 18; DB
Best Local Similarity 100.0%; Pred. No. 50;
Matches 18; Conservative 0; Mismatches
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Publication No. US20040105872A1
GENERAL INFORMATION:
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OTHER INFORMATION: n is a, c, g,
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TYPE: DNA ORGANISM: Artificial Sequence
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US-10-499-597-13
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Sequence 6, Application US/10486755
Publication No. US20040241841A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS
APPLICANT: HUMAN SERVICES
APPLICANT: HUMAN SERVICES
APPLICANT: ALIMMEN, Dennis M.
APPLICANT: Gursel, Mayda
APPLICANT: Gursel, Mayda
APPLICANT: Gursel, Mayda
APPLICANT: Gursel, Mayda
APPLICANT: Werhelly, Daniela
TITLE OF INVENTION: METHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REPERENCE: 4299-67746
FILE REPERENCE: 4299-67746
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APPLICANT: REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF HEALTH AND
APPLICANT: HUMAN SERVICES
APPLICANT: HUMAN SERVICES
APPLICANT: HUMAN Dennis M.
APPLICANT: Gureel, Mayda
APPLICANT: Verhelyi, Danniela
APPLICANT: Verhelyi, Danniela
TITLE OF INVENTION: WETHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REFERENCE: 4239-67746
CURRENT FILING DATE: 2004-02-12
RIOR PILICATION NUMBER: US 60/312,190
PRIOR PLILIG DATE: 2001-08-14
PRIOR APPLICATION NUMBER: PCT/US02/25732
PRIOR APPLICATION DEL 2001-08-14
PRIOR APPLICATION DEL 2001-08-14
PRIOR APPLICATION DEL 2001-08-13
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                                                                                                                                                                                                                                                                                    100.0%; Score 18; DB 18; Length 20; 100.0%; Pred. No. 50;
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CURRENT FILING DATE: 2004-02-12
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SOFTWARE: Patentin version 3.2
SEQ ID NO 2
LENGTH: 20
PRIOR FILING DATE: 2002-09-18
NUMBER OF SEQ ID NOS: 181
SOFTWARE: Patentin version 3.1
SEQ ID NO 178
LENGTH: 20
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ORGANISM: Artificial Sequence
                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                            , OTHER INFORMATION: synthetic US-10-666-022-178
                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0
Matches 18; Conservative
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US-10-486-755-6
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: Klinman, Dennis M.
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Sequence 19, Application US/10486755

Publication No US20040241841A1

GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS
APPLICANT: HUMAN SERVICES
APPLICANT: HUMAN SERVICES
APPLICANT: KIINMAN, Dennis M.
APPLICANT: KIINMAN, Dennis M.
APPLICANT: Gursel, Mayda

APPLICANT: Verhely1, Daniela
APPLICANT: Verhely1, Daniela
TITLE OF INVENTION: METHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REFERENCE: 4239-67746
CURRENT PILING DATE: 2004-02-12
PRIOR APPLICATION NUMBER: US 60/312,190
PRIOR PELING DATE: 2001-08-14
PRIOR FILING DATE: 2001-08-14
PRIOR FILING DATE: 2001-08-13
NUMBER OF SEQ ID NOS: 127

SOFTWARE PATEUR DATE: 2005-08-13
NUMBER OF SEQ ID NOS: 127

SOFTWARE PATEUR DATE: 2005-08-13
NUMBER OF SEQ ID NOS: 127

SOFTWARE PATEUR DATE: 2005-08-13
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; OTHER INFORMATION: n is any base, or is no base at all US-10-486-755-6
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Best Local Similarity 100.0%; Pred. No. 50;
Matches 18; Conservative 0; Mismatches 0;
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US-10-486-755-19
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PRIOR APPLICATION NUMBER: US 60/312,190
PRIOR FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: PCT/US02/25732
PRIOR FILING DATE: 2002-08-13
NUMBER OF SEQ ID NOS: 127
SOFTWARE: Patentin version 3.2
SEQ ID NO 6
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TITLE OF INVENTION: USE OF CPG OLIGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS FILE REFERENCE: 4239-64125-02
CURRENT APPLICATION NUMBER: US/10/499, 597
CURRENT FILING DATE: 2004-06-17
PRIOR RPELICATION NUMBER: PCT/US02/40955
PRIOR FILING DATE: 2002-12-19
PRIOR FILING DATE: 2002-12-20
NUMBER OF SEQ ID NOS: 106
SOFTWARE: Petentin version 3.1
SEQ ID NO 13
LENGTH: 20
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
US-09-874-991C-517
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APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KINMAN, DENNIS M.
ITILE OF INVENTION: IMMUNSSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT PILING DATE: 2001-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PALENTIN Ver. 2.1
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100.0%; Score 18; DB 19; Length 20;
Best Local Similarity 100.0%; Pred. No. 50;
Matches 18; Conservative 0; Mismatches 0; Indels
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100.0%; Score 18; DB 11; Length 28;
Best Local Similarity 100.0%; Pred. No. 47;
Matches 18; Conservative 0; Mismatches 0; Indels
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: CpG D oligonucleotide
US-10-499-597-13
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ORGANISM: Artificial Sequence
Rouse, Barry T.
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US-09-874-991C-517
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BV137302 PZA00073
BV137311 PZA00073
BV137311 PZA00073
BV137317 PZA00073
BV137308 PZA00073
BV137308 PZA00073
BV137308 PZA00073
BV137309 PZA00073
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AX194488 Sequence
AX465433 Sequence
AX465438 Sequence
BV152045 PZA02189-
AB000329 Pagopyrum
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 39 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="reaxon:32630"
/noTe="Synthetic DNA"
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other sequences, artificial sequences.
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synthetic construct
other sequences; artificial sequences.
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Sequence 39 from Patent W00151500.
AX194439
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Sequence 41 from Patent WO0151500.
AX19441. GI:15385097
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BU137311
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AX465438
BV152045
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Continuation (26 o
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AX465399 Sequence
AX19440 Sequence
AX194481 Sequence
AX194482 Sequence
AX194482 Sequence
AX152212 Sequence
AX552213 Sequence
AX552214 Sequence
AX465431 Sequence
                                                                                                        April 29, 2005, 04:31:54 ; Search time 712.216 Seconds (without alignments) 1224.620 Million cell updates/sec
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Continuation (16
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               GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                  4708233 segs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
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BX571965_25
CP000010_15
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Maximum Match 100%
Listing first 45 summaries
                                                                            - nucleic search, using sw model
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AX465481
AX465391
AX465391
AX19440
AX194481
AX194481
AX152202
AX152202
AX352202
AX46532
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Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                 1 tgcgtcgacgcagggggg 18
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seq length: 200000000
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A Bl 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                   Klinman,D., Ishii,K. and Verthelyi,D.
Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 1051500-A 40 19-JUL-2001;
Secretary Of the Department of Health and Human Services (US)
Location/Qualifiers
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"
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100.0%; Pred. No. 5.7e+02;
:ive 0; Mismatches 0;
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|mol type="unassigned DNA"
|db_xref="taxon:32630"
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/mol_type="unassigned DNA"
/db_xref="teaxon:32630"
/noTe="Synthetic DNA"
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Sequence 81 from Patent WO0151500.
AX194481
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Sequence 40 from Patent WO0151500.
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Klinman,D., Ishii,K. and Verthelyi,D.
Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 41 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Vaccine against RSV

Vaccine against RSV

Batent: W 0211761-A 59 14-FEB-2002;

HENRY W JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY

MEDICINE (US)
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Vaccine against RSV
Patent: WO 0211761-A 57 14-FEB-2002;
PHENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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/organism="synthetic construct"
/nol_type="unassigned DNA"
/db_xref="taxon:22630"
/note="Synthetic oligonucleotide"
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| Similarity 100.0%; Pred. No. 5.7e+02;
18; Conservative 0; Mismatches 0;
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Best Local Similarity 100.0%; Pred. No. 5.7e+02;
Matches 18; Conservative 0; Mismatches 0;
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/organism="synthetic construct"
/mol_type="unassigned DNA"
/bb_xref="taxon:32630"
/note="Synthetic DNA"
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Sequence 59 from Patent W00211761.
AX465391
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Sequence 57 from Patent WO0211761.
AX465389
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PAT 06-FEB-2002
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 509 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
                                                                                                                    Mond, J.J., Flora, M. and Klinman, D.M.
Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 498 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Pred. No. 3.4e+03;
0; Mismatches 1;
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/organism="synthetic construct"
/mol_type="unassigned DNA"
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/note="Synthetic HDR"
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic HDR"
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Sequence 509 from Patent WO0193902.
AX352213.1 GI:18617496
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Seguence 498 from Patent WO0193902.
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Sequence 542 from Patent WO0193902.
AX352246
                AX352202
AX352202.1 GI:18617485
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Best Local Similarity 94.44
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 82 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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/mol_type="unassigned DNA"
/db_xref="texon:32630"
/noTe="Synthetic DNA"
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/mol_type="unassigned DNA"
/db_xref="taxon:32630"
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Sequence 100 from Patent WO0151500.
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AX194500.1 GI:15385156
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Sequence 82 from Patent WO0151500.
AX194482
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Patent: WO 0211761-A 100 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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91.1%; Score 16.4; DB 6; Length 28;
Best Local Similarity 94.4%; Pred. No. 3.2e+03;
Matches 17; Conservative 0; Mismatches 1; Indels
                                                       Length 20;
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 519 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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Best Local Similarity 94.4%; Pred. No. 3.4e+03;
Matches 17; Conservative 0; Mismatches 1:
/db xref="taxon:32630"
/note="Synthetic oligonucleotide"
                                                          Score 16.4; DB 6;
Pred. No. 3.4e+03;
0; Mismatches 1;

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Sequence 519 from Patent WO0193902.
AX352223
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/note="Synthetic HDR"
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Sequence 100 from Patent WO0211761.
AX465432
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ilarity 94.4%;
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AUTHORS
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Vaccine against RSV
Patent: W 0211761-A 99 14-FEB-2002;
PHENRY W. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mond,J.J., Prince,G. and Klinman,D.M.
Vaccine against RSV
Vaccine against RSV
Batcht: WO 0211761-A 58 14-FEB-2002;
HENRY W. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Pred. No. 3.4e+03;
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91.1%; Score 16.4; DB 6; Length 20;
Best Local Similarity 94.4%; Pred. No. 3.4e+03;
Matches ,17; Conservative 0; Mismatches 1; Indels
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    Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 542 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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/organism="synthetic construct"
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/db xref="taxon:32630"
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other sequences; artificial sequences.
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other sequences; artificial sequences.
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Sequence 99 from Patent WO0211761.
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Sequence 58 from Patent WO0211761.
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Matches 17; Conservative (
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8780412 Total number of hits satisfying chosen parameters: 4390206 segs, 2959870667 residues IDENTITY NUC Gapop 10.0 , Gapext 1.0 1 tgcgtcgacgcagggggg 18 US-10-068-160A-14 18 Perfect score: Sequence: Scoring table: Searched: Title:

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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

geneseqn2003cs:* geneseqn2003ds:* geneseqn2004as:* geneseqn2003as:* N_Geneseq_16Dec04:* geneseqn2002bs:* geneseqn2003bs:* genesegn1990s:* geneseqn1980s:* geneseqn2000s:* geneseqn2001as: geneseqn2001bs: geneseqn2002as: Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2004bs:

Aas09589 Immunorea Abk46469 Immunosti Abk4647 Immunosti Acc48301 CpG 01190 Acc48312 CpG 01190 Acc83120 D class Add01055 CpG D 011 CpG D oli Immunosti Aac80619 Immunogen Immunogen Immunogen Immunogen Immunorea Immunogen Immunorea Aas09631 Immunorea Immunorea Aas09632 Immunorea Ab135616 Immunosti Ab135572 Immunosti Description Adn96869 Aac80662 Aas09650 Aac80620 Aac80621 Aas09591 Aac80661 Aas09590 SUMMARIES ACC48301 ACC48315 ACC83120 ADN96869 ADD01055 ABL35616 ABL35572 AAC80619 AAS09589 ABK46469 ABK46467 AAS09650 AS09632 AAS09591 Query Match Length DB 8 9000 8 Score 116.4 116.4 116.4 116.4 116.4 116.4 16. Result No.

HHHH0000000000000 0 1 HKH1	Aac80668 Immunogen Aa809633 Immunorea Aa809638 Immunorea
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ALIGNMENTS

RESULT 1

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; alticul response; alticul response; alticul response; alticul response; antibody practerial; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiallergical; phosphorothioate; ss. Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:39. AAC80619 standard; DNA; 20 BP (first entry) 14-FEB-2001 AAC80619; AAC80619

Synthetic

WO200061151-A2.

19-OCT-2000.

12-APR-2000; 2000WO-US009839.

99US-0128898P. 12-APR-1999;

(ISHI/) ISHII K. (VERT/) VERTHELYI D. (KLIN/) KLINMAN D. (ISHI/) ISHII K.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.

WO200061151-A2,

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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAG80581-68073). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5.*NNT-CpG*MNN-3 or 5.*R*CpG-RY Growprise one of the generic sequences 5.*NNT-CpG*MNN-3 or 5.*R*CpG-RY 3.* The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5.*RY-CpG*RX-3 being able to induce a humoral tresponse. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells cell; macrophages and dendritic cells) which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or induction of an immune response is useful for treating, preventing or mobination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include ezema, allergic conditions, and the infections which may be treated include exema, allergic conditions, and the infections which may be treated include viral, barfever, urticarial, fungal and profozoal infections such a tuberculosis, and the inname system deficiency, and symptoms resulting from the allergic conditions which may be treated include ezema, allergic conditions, and the innemens which may be treated include exema, allergic conditions which may be treated include exema allergic conditions which may be treated include exema allergic conditions of an autoinmune disorder (e.
Claim 4; Page 30; 46pp; English.
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                                     100.0%; Score 18; DB 4; Length 20; 100.0%; Pred. No. 50; cive 0; Mismatches 0; Indels
Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                               1 TGCGTCGACGCAGGGGG 18
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                                                        Best Local Similarity 100.
Matches 18; Conservative
                                         Query Match
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Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:41.
           AAC80621 standard; DNA; 20 BP.
                                 14-FEB-2001 (first entry)
                      AAC80621;
RESULT 2
     AAC80621
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CpG oligodeoxynucleotide, unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; natibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rhemmacoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic.

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The invention relates to novel immunogenic CpG oligodeoxynucleotides CC (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNN-20G-WNNN-3' or 5'-RY-CpG-RY CTG-3'. The central CpG motif is unmethylated, and the oligonucleotides and cheer of degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide of the sequence 5'-RY-CpG-RY-3' being able to induce a humoral (B-cell, antibody) response, with colligonucleotides act able to induce a thumoral tesponse. It is thought that after call induce and induce and those of the sequence 5'-NNY-CpG-WNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells administration of antiward natural (NN) cells. A cell-mediated or humoral response and dendritic cells), which then release cytokines, complex to an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczeme, allergic conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, cused in the treatment of an autocimmune disorder (e.g., lupus casciated with immune system deficiency, and symptome resulting from a customate to an adent of biological warfare. An immunogenic CpG cligonucleotide, either alone or in combination with an anti-ties and endicency and the infections of a complex of an autocimmune and endiced of a pagent, is administered by the fairer 
                                                                                                                                                                                                                                                                                                                                                                                            Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                present sequence represents an immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonuclectide is preferably administered to
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                                                                                                                                                                                                                                                                                                                                                                                                                              allergies, cancer, and autolmmuse alsolvess concerning from exposure to a bio-warfare agent.
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                                                                                                                 12-APR-2000; 2000WO-US009839.
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Best Local Similarity 100.
Matches 18; Conservative
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                                                                                                                                                                                                                                     (ISHI/) ISHII K.
(VERT/) VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-006880/01.
                                                                                                                                                                                                            (KLIN/) KLINMAN D.
                                                                                                                                                                12-APR-1999;
                                                                  19-OCT-2000.
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RESULT 3

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IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare, vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistcosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; se.
                                                                                     sequence; immune response; non-B cell activation; interferon gamma;
                                                                 Immunoreactive CpG sequence-containing oligonucleotide #41.
         AAS09591 standard; DNA; 20 BP.
                                                                                                                                                                                                                                           12-JAN-2001; 2001WO-US001122.
                                              26-SEP-2001 (first entry)
                                                                                                                                                                                                    WO200151500-A1.
                                                                                                                                                                                                                        19-JUL-2001
                                                                                                                                                                                  Synthetic.
                            AAS09591;
AAS09591
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14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47.

Oligodeoxynuclectides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG seguences

Claim 5; Page 34; 48pp; English

AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 Anthrax and Listeria

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

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Gaps
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           18; Conservative
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Query Match
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            Matches
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3 TGCGTCGACGCAGGGGG 20 유

AAS09589

AAS09589 standard; DNA; 20 BP

AAS09589;

(first entry) 26-SEP-2001

Immunoreactive CpG sequence-containing oligonucleotide #39.

IFN-gamma; humoral; ancibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergy; antinitis; coryza; hay fever; utticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV, malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; se. CpG sequence; immune response; non-B cell activation; interferon gamma;

Synthetic.

WO200151500-A1.

19-JUL-2001.

12-JAN-2001; 2001WO-US001122.

14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sednences

Claim 5; Page 33; 48pp; English.

AASO9551-AASO9662 represent cligodecxynuclectides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The converse of the multiple cpg sequences and the converse of the multiple cpg sequences. The converse of the multiple cpg sequences involving B converse of the multiple cpg sequences involving B converse of the multiple cpg sequences involving B converse of the cpg sequences involving B converse of the cpg sequences in the cpg sequence of the cpg sequence infection Anthrax and Listeria

Seguence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

Matches

RESULT 5 ABK46469

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The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by quantine linked by phosphate bond)-oligodideoxynucleotides (ODMs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RsV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RsV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CpG oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; cytostatic; immunostimulant; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vaccine for immunizing patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides.
                                                                                                                                    unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
                                                                                               Immunostimulatory unmethylated CpG oligodideoxynucleotide #57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CpG oligodeoxynucleotide used for dendritic cell maturation.
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01-SEP-2000; 2000US-0229307P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by Quanine linked by phosphate bond, -oligodideoxynucleotides (DNS). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RSV), the primary cause of viral bronchiolitis and pneumonia in infants and children, and infectious pulmonary disease in infants. RSV has been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        represents an oligodideoxynucleotide that can be used in the creation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vaccine for immunizing patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                           unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virue; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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                                                                                                                                                                                                                                                                                                                                                    Immunostimulatory unmethylated CpG oligodideoxynucleotide #59.
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  4; Length 20;
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                                           Indels
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  DB
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                                           Mismatches
  100.0%; Score 18;
100.0%; Pred. No. 5
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                                                                                  1 TGCGTCGACGCAGGGGGG 18
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01-SEP-2000; 2000US-0229307P.
                                                                                                                           3 recerceacecadedes
                                                                                                                                                                                                                                 ABK46469 standard; DNA; 20
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                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Prince G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-227118/28.
Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                 05-JUN-2002
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                                             18;
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RESULT 6 ABK46467

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Sterically stabilised cationic liposome; SSCL; ODN; oligodeoxynucleotide; tuberculosis; cytokine; leishmaniasis; AIDS-associated Kaposi's tumour; thyroid; cancer; allergy; eczema; allergic rhinitis; coryza; hay fever; schistosomiasis; interferon gamma; lupus erythematosus; antimicrobial; asthma; urticaria; autoimmune disease; diabetes; rheumatoid arthritis; CpG motif; interleukin-13; cytostatic; tularemia; malaria; psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature dendritic cells may also
                                                                                                                                                                                                                                                                                                       The present sequence is that of CpG oligodeoxynucleotide DV32 of the invention. A claimed method for generating dendritic cells involves contacting a dendritic cell precursor, especially a monocyte, with a D type oligodeoxynucleotide (see ACC48294) containing a central unmethylated CpG motif. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for tumour immunotherapy.
                                                                                                                                                                  Generating mature dendritic cells for tumor immunotherapy or as vaccines
                                                                                                                                                                                   for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D class CpG ODN sequence useful for encapsulating in SSCL, DV32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 8; Length 20;
50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         be used to produce activated T lymphocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CpG motif, interleukin-13, cytostatic; tul multiple sclerosis; infection; tumour; ss.
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                                         (USSH ) US DEPT HEALTH & HUMAN SERVICES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No
                                                                                  Verthelyi D;
                                                                                                                                                                                                                                                                     Disclosure; Fig 8; 69pp; English
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2002US-00206407.
  14-AUG-2001; 2001US-0312190P.
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                                                                                  Gursel M,
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                                                                                                                                                                                                                              oligodeoxynucleotide.
                                                                                                                        WPI; 2003-300874/29.
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                                                                                  Klinman DM,
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is that of a D type CpG oligodeoxynucleotide that is an example of claimed D type oligodeoxynucleotides (see ACC48294) of the invention. Mature dendritic cells are obtained by contacting a dendritic cell precursor, such as a monocyte, with such an oligodeoxynucleotide. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antime presentation. Mature dendritic cells are useful for tumour immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to a clivate the immune system to treat diseases such as cancer. Mature dendritic cells may also be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CpG oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; cytostatic; immunostimulant; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Generating mature dendritic cells for tumor immunotherapy or as vaccines for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type oligodeoxynucleoride.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                            any base (especially G) or no base"
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                                                                                                                           or
                                                                                                                      any base (especially G)
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                                                                                                                                                                                                                                                                                                                                                                        Verthelyi D;
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                produce activated T lymphocytes
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                                                            1.8
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les 18; Conservative (
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Key
misc_difference
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Query Match Best Loc Matches

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Puri RK;

Joshi BH,

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The invention relates to sterically stabilised cationic liposomes (SSCL) which comprises a cationic lipid, a co-lipid, stabilising agent and encapsulating a K type oligodeoxynucleotide (ODN) including a CpG motif. The invention is useful in pharmaceutical composition for impairing growth of a solid tumour cell (e.g. human tumour cell) bearing an immune response, which is expression of a cytokine (e.g. interferon gamma), particularly immunocherapeutic response against tumours or stimulating an invince an in vitro immune cell, and for inducing an immune response against an in vitro immune cell, and for inducing an immune response against an in vitro immune cell, and for inducing an immune response against an infurcal applications; for treating infectious diseases (e.g. tularemia, malaria, francisella, schistosomiasis, tuberculosis and leishmaniasis, cancer (e.g. solid tumours, AIDS-associated Kaposi's tumour, thyroid cancer etc), allergy (e.g. eczema, allergic rhinitis or coryza, hay fever, bronchial or allergic asthma, utticaria, food allergies), autoimmune consenses (e.g. diabetes, rheumatoid arthritis, lupus erythematosus and multiple sclerosis) and psoriasis. The present sequence is a D class CpG odn potentially useful for encapsulating in SSCL
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Cationic liposome composition for delivering oligodeoxynucleotides including a CpG motif in clinical applications, comprises a cationic lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vascular endothelial growth factor; VEGF; CpG oligonucleotide;
neovascularisation; angiogenesis; vulnerary; vasotropic;
antiarteriosclerotic; gene therapy; skin graft; male pattern baldness;
atherosclerosis; ischemia; ss.
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(USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                     Disclosure; Fig 10C; 110pp; English.
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Best Local Similarity 100.0
Marches 18; Conservative
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The present invention describes a method for inducing the production of vascular endothelial growth factor (VEGF) by a cell comprising contacting the cell with a CpG oligonucleotide and therefore inducing the production of VEGF by the cell. Also described: (1) inducing neovascularisation in a ctissue, comprising introducing a CpG oligonucleotide into an area of the tissue, where the formation of new blood vessels is desired, and so inducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an axea of the subject where angiogenesis is desired, comprising introducing a CpG oligonucleotide to the area, and so promoting angiogenesis in the subject; and (3) screening for an agent that inhibits neovascularisation, comprising administering a CpG oligonucleotide to a non-human mammal and administering the agent to the ammal, where inhibitition of angiogenesis in the configuration. The CpG oligonucleotides have vulnerary, vasotropic and antiarteriosclerotic continuous in gene therapy. The method and the CpG oligonucleotides can be used in igene therapy. The method and the CpG oligonucleotides can be used in inducing angiogenesis or exhibit male pattern baldness, or subjects with a skin graff, subjects who exhibit male pattern baldness, or subjects with a skin graff, subjects who exhibit male pattern baldness, or subjects who have a wound or who have a wound or who have catherents that inhibit neovascularisation. The present sequence the partern harman in the present sequence the partern harman and in subjects with its used in the exemplification of the partern harman and in a used in the exemplification of the partern harman and the control of the angents in the partern harman and the control of the angents in the partern harman and the control of the partern harman and 
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KW dermatological; bacterial growth inhibitor; immunostimulator;

KW dermatological; bacterial growth inhibitor; immunostimulator;

KW immune response; immunostimulatory; opportunistic infection;

KW lentivirus infection; human immunodeficiency virus infection;

Leichmania infection; bacterial infection; fungal infection;

KW leichmania infection; protozoan infection; prion disease; mucleoplasm;

KW salmonallosis; syphilis; neurosyphilis; tuberculosis;

KW salmonallosis; spergillosis; candidiasis; coccidioidomycosis;

KW almoniasis; microsporidiosis; pneumocystis carinii pneumonia;

KW toxoplasmosis; cytomegalovirus; hepatitis; herpes samini pneumonia;

KW toxoplasmosis; cytomegalovirus; molluscum contagiosum; oral hairy leukoplakia;

KW toxoplasmosis; symulificaal leukoencephalopathy; neoplasm; Kaposi 's sarcoma;

KW progressive multifocal leukoencephalopathy; neoplasm; Kaposi's sarcoma;

KW systemic non-Hodgkin's lymphoma; primary central nervous system lymphoma;

KW immunostimulatory CpG oligonucleotide; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        virucide; anti-HIV; antibacterial; fungicide; cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 18; DB 10; Length 20; 100.0%; Pred. No. 50;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunostimulatory D CpG oligonucleotide segid 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
Example 7; SEQ ID NO 19; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-2003; 2003US-00666022.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JS2004105872-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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continuence, and intereptable in an influence continuence but the continuence of all infections include calmonellosis, the fungal infections include appreciallosis, candidiasis, and cardidiodiomycosis, the fungal infections include aspergillosis, candidiasis, coccidiodiomycosis, cryptococcal meningitis, hepatitis B, and histoplasmosis, the protozoal infections include cryptosporidiosis, soft infections include cryptosporidiosis, pneumocystis carinii pneumonia and toxoplasmosis, viral infections include crytomegalovirus, hepatitis, herpes simplex, herpes zoster, human papilloma virus, molluscum contagiosum, oral hairy leukoplakia and progressive multifocal leukoencephalopathy and neoplasms include Kaposi's sarcoma, systemic non-Hodgkin's lymphoma and primary central nervous system lymphoma. The Hodgkin's lymphoma and primary central nervous system lymphoma. The howan papilloma virus includes HPV, genital warts and cervical cancer. The method simulates immune responses to any opportunistic infection in immunocompromised subjects. This sequence that epiresents an immunostimulatory CGG oligonucleotide sequence that stimulate the release of cytokines from cells of the immune system and can be used to increase immune response in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                     The invention describes a method of increasing an immune response to an opportunistic infection in an immunocompromised subject involves administering an immunostimulatory D Oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide, where an antigenic epitope of a polypoptide is not administered to the subject. The method is useful for increasing an immune response to an opportunistic infection e.g. infection with a lentivirus such as human immunodeficiency virus (including HIV-1, HIV-2) e.g. AIDS; infections with Leishmania; bacterial infections; fungal infections; viral infections; protozoan infections; prion disease; and nucleoplasm in an immunocompromised subject or a
                                                                                                                                                                                                                               Increasing an immune response to an opportunistic infection e.g.
                                                                                                                                                                                                                                                            involves
                                                                                                                                                                                                                                                      bacterial infections in an immunocompromised subject involves administering immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide.
                                                    (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                      Claim 21; SEQ ID NO 3; 64pp; English.
  18-SEP-2002; 2002US-0411944P.
                                                                                                            Klinman DM, Verthelyi D;
                                                                                                                                                                    WPI; 2004-419442/39.
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; 0 100.0%; Score 18; DB 12; Length 20; 100.0%; Pred. No. 50; 0; Indels Sequence 20 BP; 2 A; 4 C; 10 G; 2 T; 0 U; 2 Other; Mismatches ; 0 18; Conservative Best Local Similarity Query Match Матсһев

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Gaps

1 TGCGTCGACGCAGGGGG 18 3 recerceacecadedes 20 ઠે

AAC80662 standard; DNA; 20 BP

AAC80662; MARKA MARKA

14-FEB-2001 (first entry)

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:82.

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; espense; espense; espense; espense; espense; antibody production; immune response induction; vacine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasaitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic;

antimicrobial; antiallergic; protozoacide; tuberculostatic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic.

WO200061151-A2.

19-OCT-2000.

12-APR-2000; 2000WO-US009839

99US-0128898P. 12-APR-1999;

KLIN/) KLINMAN D.

(ISHI/) ISHII K. (VERT/) VERTHELYI D. (/IHSI)

Verthelyi Klinman D, Ishii K,

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.

Claim 4; Page 36; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxymucleotides CG (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5 *NRNN-260**NRN-3' or 5 *RY-CpG-RY.

CC omprise one of the generic sequences 5 *NRNN-260**NRN-3' or 5 *RY-CpG-RY.

CC optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex. The oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotides are able to induce a the oligonucleotides are able to induce a linkar and those of the sequence 5 *RY-CpG-RX-3' being able to induce a muoral response. It is thought that after calling able to induce a humoral (B-cell, which then release cytokines, cell mediated response, and dendritic cells), which then release cytokines, camplicating an allergic caction for activation of matural killer (NK) cells. A cell-mediated or humoral response is useful for treating, preventing or an immunogenic CpG oligonucleotide is administered either alone or complexing an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or conditions, and the infections which may be treated include eczema, allergic conditions, and the infections which may be treated include eczema, allergic chickistosomisasis. Immune response induction may also be erythematosus, rheumatod arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptom resulting from agent to an autolomence and symptom may also be erythematosus, rheumatod arthritis and multiple sclerosis), and agent of an autolomence and symptom with an anti-disorder (e.g., lumune expense is useful for treating maniference and symptom and efficiency and in anti-dense therapy and to immune the and the infections with administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention immune response is used in antisense therapy and to improve the efficacy then lymphocytes ex vivo, producing activated lymphocytes which are deministered to the host. The present sequence represents an ima vaccine. The oligonucleotide is preferably administered

Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

91.1%; Score 16.4; DB 4; Length 20; 94.4%; Pred. No. 2.9e+02; 1; Indels Mismatches -0 Query Match Best Local Similarity 94.4%

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The invention Figures to move immunogenic type origonactoridaes comprise one of the generic sequences 5' NRNT-CpG-WNNN-3' or 5'-RY-CpG-RY comprise one of the generic sequences 5' NRNT-CpG-WNNN-3' or 5'-RY-CpG-RY comprise one of the generic sequences 5' NRNT-CpG-WNNN-3' or 5'-RY-CpG-RY optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-delivery complex. The oligonucleotides are able to induce a tell-mediated (T-cell) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNT-CpG-WNNN-3' cell-mediated response, and those of the sequence 5'-NNT-CpG-WNNN-3' cell-mediated or induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells cells, macrophages and dendritic cells), which then release cytokines, cell-adding to activation of natural killer (NK) cells. The cells. The loading to activation of native sequence of cells. The cells of a meliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergant cant anti-infectious agent. The allergic conditions which may be treated include viral, conditions, and the infections which may be treated include viral, tenditions, and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AlbS, bacterial, tungal and protozoal infections such as tuberculosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CpG oligodeoxymucleotide, unmethylated, antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; natibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to novel immunogenic CpG oligodeoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:81.
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3 TGCGTCGATGCAGGGGG 20
                                                                                                                                                                                                                                                                     AAC80661 standard; DNA; 20 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
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(VERT/) VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-006880/01.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200061151-A2.
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                                                                                                                                                                                                                                                                                                                                                                       AAC80661;
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                                                                                                                                                                   RESULT 13
                                                                                                                                                                                                              AAC80661
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ö The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY 3'. The central CpG motif is unmethylated, and the oligonucleotides CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple solerosis; solid tumour; cancer; immune deficiency; blological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss. Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms used in the treatment of an autoimmume disorder (e.g., lupus erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to administered to the host. The present sequence represents a minmunogenic CpG oligodeoxynucleotide of the invention leishmania and schistosomiasis. Immune response induction may also be Gaps ö Score 16.4; DB 4; Length 20; Pred. No. 2.9e+02; 0; Mismatches 1; Indels Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:40. Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other; allergies, cancer, and autoimmune disorders and resulting from exposure to a bio-warfare agent. ä Verthelyi Claim 4; Page 30; 46pp; English. 18 20 AAC80620 standard; DNA; 20 BP. 12-APR-2000; 2000WO-US009839. 99US-0128898P. Query Match 91.1%; Best Local Similarity 94.4%; Matches 17; Conservative TGCGTCGACGCAGGGGG 3 recercearecadeded (first entry) Klinman D, Ishii K, (ISHI/) ISHII K. (VERT/) VERTHELYI D. WPI; 2001-006880/01. (KLIN/) KLINMAN D. WO200061151-A2. 12-APR-1999; 14-FEB-2001 19-0CT-2000. Synthetic. AAC80620; RESULT 14 **AA**C80620 \$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$*****& ð g

coptionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting complex comprising an oligonucleotide of the invention and a targetting complex complex. The oligonucleotides are able to induce either a cell-mediated (T-cell) response or a humoral (B-cell, antibody) response, with classification and those of the sequence 5'-RN-TopG-WNN'3' and classed the sequence 5'-RNNT-GDG-WNN'3' and those of the sequence 5'-RNNT-GDG-WNN'3' and classed able to induce a humoral lesponse. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells classified and activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T or B-cells. The classified and language and demittic cells, which then release cyckings, and there an immune response is useful for treating, preventing or induction of an immune response is useful for treating, preventing or where an immunospenic CpG oligonucleotide is administered either alone or in combination with an anti-alergenic agent or anti-infectious agent. The allergic conditions which may be treated include excema, allergic conditions which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AIDS, lashmania and schletosomalasis. Immune response induction may also be erythematosus, rheumatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptomes resulting from exposure to an agent of biological warfare. An immunosenic CpG oligonucleotide, either alone or in combination with an anti-cancer associated with immune spetch editors which are then anti-induction of an adent of biological warfare. The induction of an immune response is used in antisense therapy and to improve the efficacy of Immune response is used in antisense therapy and to improve the efficacy of Immune response is

Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

ö 91.1%; Score 16.4; DB 4; Length 20; 94.4%; Pred. No. 2.9e+02; ive 0; Mismatches 1; Indels 1; Indels ő 1 TGCGTCGACGCAGGGGG 18 3 recercearecaeeee Local Similarity 94.4 Query Match Matches ઠે 용

RESULT 15 AAS09650

AAS09650 standard; DNA; 20 BP. AAS09650;

(first entry) 26-SEP-2001

Immunoreactive CpG sequence-containing oligonucleotide #100.

CpG sequence; immune response; non-B cell activation; interferon gamma; therageutic; allergy; asthma; cancer; autoimmune disorder; infection; therageutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistcosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; se.

Synthetic.

WO200151500-A1.

19-JUL-2001.

12-JAN-2001; 2001WO-US001122

14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sednences.

Claim 5; Page 43; 48pp; English.

Anthrax and Listeria

Sequence 20 BP; 3 A; 4 C; 11 G; 2 T; 0 U; 0 Other;

; 0

Gaps

Gapв ö 91.1%; Score 16.4; DB 4; Length 20; 94.4%; Pred. No. 2.9e+02; ive 0; Mismatches 1; Indels 17; Conservative Query Match Best Local Similarity Matches

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TGCGTCGACGCAGGGGG 18 ઠ

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BJ496322

BJ493235 BJ500451 aof01-1m6 SCRLAM100

SCAGFL801 UI-M-FY0-

Scoring table:

Searched:

Minimum DB 8 Maximum DB 8

Database

Perfect score:

Sequence:

OM nucleic

Run on:

OGVHG74TV

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linear GSS 22-SEP-2003
genomic clone ZMMBBc0011017
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoideae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Bharti,A.K.

Contact: Bharti,A.K.

Dr. Joachim Messing's lab

Dr. Joachim Messing's lab

University

190 Frelinghuysen Road, Piscataway, NJ 08854, USA

Fax: 732 445 3735

Email: bharti@waksman.rutgers.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol type="genomic DNA"
/cultivar="B73"
/db xref="taxon:4577"
/db b ost="ZMMBBC0011017"
/lab host="E. coli DH10B"
/clone_lib="ZMMBBC (ECORI)"
/note="Vector: pTARBAC2.1; Site_1: ECORI; Site_2: ECORI"
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Rouzard,K., Fuks,G., Yu,Y., Wing,R. and Messing,J.
Sequencing of the maize genome at PGIR (2003b)
                                                                                                   CCF484481
CCT33569
BJ493235
BJ500451
CV289422
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BJ512362
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94.4%; Pred. No. 1.1e+03;
tive 0; Mismatches 1;
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Class: BAC ends
High quality sequence start: 64
Location/Qualifiers
1 . 894
/organism="Zea mays"
                                                              CD666782
CV458196
BJ496322
                                                                                                   CF484481
CC133569
BJ493235
BJ500451
CV289422
CA078334
BJ512362
CA290160
CD348840
CG440448
                                                     BI489134
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Matches 17; Conservative
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Zea mays
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                                                                                    April 29, 2005, 05:15:22 ; Search time 1687.62 Seconds (without alignments) 405.990 Million cell updates/sec
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CG305844
CG305846
BM428951
BM774441
BM774441
BM049816
CG303497
CG299311
CC299311
CC299311
CC2957153
AAR807753
CD660132
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            GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                 34239544 segs, 19032134700 residues
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Maximum Match 100%
Listing first 45 summaries
                                                             nucleic search, using sw model
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BU499653
BU049816
CG303497
BQ135709
CG299311
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BZ583033
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seq length: 200000000
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DEFINITION

RESULT 2 BE453868

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ACCESSION VERSION

ORGANISM

KEYWORDS

JOURNAL

FEATURES

AUTHORS TITLE

REFERENCE

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/note="Organ: tassels; Vector: HybriZAP; Site_1: EcoRI; Site_2: XhoI; George Chuck dissected immarure tassels between 1mm and 3mm. Sharon Stanfield prepared the CDNA library in HybriZAP. Sample insert size range was 350 bp to 3 Kb with a 1 Kb average."
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1 (bases 1 to 469)
Walbot, V.
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Contact: Walbot V
Department of Biological Sciences Stanford University
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/clone_lib="946 - tassel primordium prepared by Schmidt
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/cultivar="mixed background W23/A188/B73/K55"
/db_xref="taxon:4577"
/tissue_type="leaf"
/lab_host="bH10B"
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University
L Unpublished (1999)
Contact: Walbot V
Contact: Walbot V
Department of Biological Sciences
Stanford University
855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
Fax: 650 728 2221
Email: walbot@stanford.edu
Plate: 946047 row: E column: 07.
Location/Qualifiers
. 469
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Tel: 650 723 2227
Fax: 650 725 8221
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100.0%; Pred. No. 1.9e+03;
iive 0; Mismatches 0;
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/tissue_type="tassels"
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Plate: 3590 1 49 1 column: 10
Class: transposon-tagged.
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/cultivar="OH43"
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Zea mays

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
( Dasses 1 to 469)
Walbot, V.

Malbot, V.

Maize ESTs from various cDNA libraries sequenced at Stanford
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    (bases 1 to 443)

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/dev_stage="just after the transition from vegetative to
inflorescence development"
/lab host="XLOLR"
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lab"
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Maize ESTs from various cDNA libraries sequenced at Stanford
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/mol type="mRNA"
/cultivar="0H43"
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DEFINITION

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SOURCE

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/clone lib="3590 - RescueMu Grid M"
/note="Organ: leaf; Vector: RescueMu (engineered from pBlueScript backbone); Site 1: BamHi; Site 2: BgIII;
RescueMu is a 4.9 kb, modified maize Mu transposon designed to allow plasmid rescue from total genomic DNA. Mu elements insert preferentially into transcription units. For more information on RescueMu, go to the web site 'www.zmdb.iastate.edu' and follow the links for 'RescueMu.' Grid M was grown at University of Arizona in 2001. DNA was extracted from leaf punches, double digested using BamHi and BgIII, and ligated to form circular plasmids. DHIOB cells were transformed and then screened on LB plates with ampicillin."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (25-APR-2002) Maize Mapping Project, University of
Missouri, Columbia, MO 65211, USA
Missouri, Columbia, MO 65211, USA
If you are interested in getting corresponding physical clones,
these are publicly available from ZmDB and may be found by BLAST
searching at MSL, maizemap.org; ZmDB, www.zmdb.iastate.edu; TIGR,
www.ibgr.org; or NCBI, www.ncbi.nlm.nih.gov. When the source of the
maize cDNA sequences is either Virginia Walbot, Stanford or Pat
Schnable, Iowa State, then clones may be requested from ZmDB:
www.zmdb.iastate.edu.
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(bases 1 to 481)

Arahany, C.F., Dolann, M., Mao, G.H., Vogel, J.M., Whitsitt, M.S., Arthur, L.W., Hanafey, M., Morgante, M. and Tingey, S.V.

Maize Mapping Project/DuPont Consensus Sequences for Design of
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                                                                                                                                                                                                                                                                                                                                                                  Gaps
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/clone_lib="Maize Mapping Project/DuPont Cornsensus
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100.0%; Pred. No. 1.9e+03;
ive 0; Mismatches 0;
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88.9%; Score 16; DB 3; Le
Best Local Similarity 100.0%; Pred. No. 1.8e+03;
Matches 16; Conservative 0; Mismatches 0;
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/mol_type="mRNA"
/db_xref="MaizeDB:638670"
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481 bp
26a mays PC0146698 mRNA sequence.
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AY106226.1 GI:21209304
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Unpublished (2002)
2 (bases 1 to 481)
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CG305844 1406-2003 CG305844 1408 Pp DNA linear GSS 25-AUG-2003 OG0BX58TV ZM 0.7_1.5_KB Zea mays genomic clone ZMMBMa0683120, genomic survey sequence.
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low nitrogen, cv
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Makaryota Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Wagnoliophyta; Liliopsida; Poales; Poaceae;
Pooldeae; Triticeae; Hordeum.
1 (bases 1 to 498)
Healey, P., Liu, H., Caldwell, D., McCallum, N., Mudie, S., Cardle, L.,
Ramaay, L., Machray, G., Marshall, D.F.M. and Waugh, R.
Development of Barley Transcriptome Resources
                                                                                                                                                                                                                                                                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopaida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
1. (bases 1 to 400)
                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 488)
Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Citek, R.W., Nunberg, A., Robbins, D. and Lakey, N.
Consortium for Maize Genomics
Unpublished (2002)
Other_GSSS: OGOBX58TH
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/clone lib="zm 0.7 1.5 KB"
/chch="Vector: pBGSK-, Site_1: HincII; 0.7-1.5 kb
methylation filtered genomic DNA library"
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BERO02_SQ004_A16_R root, 3 week, hydroponic grown, low nOptic, EBro02_Hordeum vulgare subsp. vulgare cDNA clone EBro02_SQ004_A16_5', mRNA sequence.
BQ762616
BQ762616.1 GI:21971088
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Mismatches 0;
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/strain="B73"
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Location/Qualifiers
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Fax: 301-838-0208
Email: whitelaw@tigr.org
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CG305844.1 GI:34220058
260 recerceacecades 275
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EBroll SQ004 A20 R root, 3 week, hydroponic grown, no treatment, cv Optic, EBroll Hordeum vulgare subsp. vulgare cDNA clone BBroll SQ004 A20 S', mRNA sequence.
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                                                                                                              /note="vector: pUC19; Site 1: EcoR1; Site_2: EcoR1; The library was prepared by George Rudenko using poly (A) selected RNA and Universal Riboclone cDNA Synthesis System (Promega). CDNA was synthesized using both random and oligo (dr) primers in separate reactions and equipped with EcoR1 adaptors. Library was size-fractionated on agarcose gels (for insert size >400bp) and non-directionally cloned into EcoR1 digested pUC19 vector. Blue/white selection on carbenicillin-containing plates was used to recover
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Hordeum vulgare subsp. vulgare
Eukaryota, Viridiplantae, Streptrophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.
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Hedley, P., Liu, H., Caldwell, D., McCallum, N., Mudie, S., Cardle, L.,
Ramsay, L., Machray, G., Marshall, D.F.M. and Waugh, R.
Development of Barley Transcriptome Resources
Unpublished (2001)
/clone lib="952 - BMS tissue from Walbot Lab (reduced rRNA)"
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/mol_type="mRNA"
/culTivar="Optic"
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/db_xref="taxon:112509"
/clone="BBro01_80004_A20"
/tissue_type="root"
/dev_stage="3 week"
/lab_host="DH108"
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Best Local Similarity 100.0
Matches 16; Conservative
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/sub_species="vulgare"
/db_xref="taxon:112509"
/clone="BBroO2 SQ004_Al6"
/tissue_type="root"
/dev_stage="3 week"
/dev_stage="3 week"
/dev_stage="a week"
/dev_stage
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/dev_stage="mixed logarithmic and stationary growth
phases"
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/db_xref="taxon:457"
             Unpublished (2001)
Contact: Waugh R, Marshall DF
Genome Dynamics/Computational Biology
Gentish Crop Research Institute
Invergowrie, Dundee, DD2 5DA, Scotland, UK
Tel: 00 44 1382 562426
Fax: 00 44 1382 562426
Email: est@scri.aari.ac.uk.
Location/Qualifiers
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Stanford University
855 California Ave, Palo Alto, CA 94304, USA
721: 650 723 2227
Fax: 650 725 8221
Email: walbot@stanford.edu
Plate: 952026 row: C column: 01.
Location/Qualifiers
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100.0%; Pred. No. 1.8e+0:
ive 0; Mismatches
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/organism="Zea mays"
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Wheat functional genomics - Glenlea developing seeds CDNA libraries Unpublished (2002)
Contact: Dr. Sylvie Cloutier
Contact: Dr. Sylvie Cloutier
Cereal Research Centre, Agriculture and Agri-food Canada
195 Dafce Rd, Winnipeg, MB, Canada R3T 2M9
Tel: (204) 983-2340
Fax: (204) 983-2340
Email: scloutier@agr.gc.ca
was cloned directionally, not all sequences generated with reverse primer were from the 5' end (same with forward primer and 3' end).
Average insert size is >2.0 kb
Plate: 040 row: D column: 12
Seq primer: M13 Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                      /tissue_type="developing seeds"
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/lab_host="E. coli DH10B"
/clone_lib="TaE05"
/note="Vector: pSPORT-P (Invitrogen Technologies); Site_1:
Not1; Site_2: Mlu1; mRNA obtained from wheat seeds of
cultivar Glenlea 5 days post-anthesis"
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                    genomics - Glenlea developing seeds cDNA libraries
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/tissue_type="tassels"
/dev_stage="just after the transition from vegetative to
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Department of Biological Sciences
Stanford University
855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
Exex: 650 725 8221
Email: walbot@stanford.edu
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/organism="Triticum aestivum"
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TaE05040D12R TaE05 Triticum aestivum cDNA clone TaE05040D12R, mRNA
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1 (bases 1 to 541)
Whitelaw, C. A., Quackenbush, J., Van Aken, S., Utterback, T., Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T., Consortium for Maize Genomics
Unpublished (2002)
Other GSSs: OGOBX58TV
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Spermatophyta; Magnollophyta; Lillopsida; Poales; Poaceae;
Sooideae; Triticae; Triticum.
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/clone="ZRMBMa0681120"
/clone=lb="ZM 0.7_1.5_KB"
/note="Vector: pBCSK-; Site_1: HincII; 0.7-1.5 kb
methylation filtered genomic DNA library"
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9712 Medical Center Drive, Rockville, MD 20850, USA
Tel: 301-838-5843
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ilarity 100.0%; Pred. No. 1.8e+03;
Conservative 0; Mismatches 0;
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/organism="Zea mays"
/mol_type="genomic DNA"
/strain="B73"
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100.0%; Pre
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Fax: 301-838-0208
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Torres-Jerez, I., Scott, A.D., Harris, A.R., Gonzales, R.A., Bell, C.J., Flores, H.R., Inman, J.T., Weller, J.W. and May, G.D. Expressed Sequence Tags from the Samuel Roberts Noble Foundation - Center for Medicago Genomics Research Unpublished (2000)
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Citek, R.W., Nunberg, A., Robbins, D. and Lakey, N.
Consortium for Maize Genomics
Unpublished (2002)
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OGIAI84TH ZM_0.7_1.5_KB Zea mays genomic clone ZMMBMa0717M23, genomic survey sequence.
CG303497.1 GI:34217711
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methylation filtered genomic DNA library"
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The Samuel Roberts Noble Foundation
2510 Sam Noble Parkway, Ardmore, OK 73402, USA
Tel: 580 221 7302
Email: radixon@noble.org
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larity 100.0%; Pred. No. 1.7e+03;
Conservative 0; Mismatches 0;
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/strain="B73"
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Location/Qualifiers
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Fax: 301-838-0208
Email: whitelaw@tigr.org
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                                                                                 /note="Organ: tassels; Vector: HybriZAP; Site_1: EcoRI; Site_2: XhoI; George Chuck dissected immature tassels between Imm and 3mm. Sharon Stanfield prepared the cDNA library in HybriZAP. Sample insert size range was 350 bp to 3 Kb with a 1 Kb average."
                                                                                                                                                                                                                                                                                                                                                                                                                                           BU049816 600 bp mRNA linear EST 26-AUG-2002 1111015B03.yl 1111 - Unigene III from Maize Genome Project Zea mays cDNA, mRNA sequence.
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                                             /clone_lib="946 - tassel primordium prepared by Schmidt
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Walbot, V.
Maize ESTs from various cDNA libraries sequenced at Stanford
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855 California Ave, Palo Alto, CA 94304, USA
855 California Ave, Palo Alto, CA 94304, USA
7721: 650 723 8221
Fax: 650 725 8221
Email: walbordetanford.edu
Plate: 1111015 row: B column: 03.
Location/Qualifiers
                                                                                                                                                                                                                               88.9%; Score 16; DB 5; Le
100.0%; Pred. No. 1.8e+03;
tive 0; Mismatches 0;
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              inflorescence development"
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Contact: Walbot V
Department of Biological Sciences
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Query Match

88.9%; Score 16; DB 5; Length 939;
Best Local Similarity 100.0%; Pred. No. 1.7e+03;
Matches 16; Conservative 0; Mismatches 0; Indels

Search completed: April 29, 2005, 11:55:21 Job time : 1691.62 secs

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Scoring table:

Searched:

Minimum DB Maximum DB

Database

Perfect score:

Sequence:

OM nucleic

Run on:

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Sequence 19321, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE NOT INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
CURRENT APPLICATION NUMBER: 00/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 19321
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BEREAL INCORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
PRIOR PILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-30
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
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Pred. No. 4.6e+02;
0; Mismatches 2; Indels
US-09-482-273-82

US-09-252-991A-5833

US-09-252-991A-9963

US-09-252-991A-9043

US-09-252-991A-9043

US-09-252-991A-977

US-09-221-017B-792

US-09-221-017B-792

US-09-902-540-444

US-09-902-540-455

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-255

US-09-902-540-261

US-09-902-540-261
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US-09-949-016-19322
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    TYPE: DNA ORGANISM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3692, Ap Sequence 11818, A Sequence 251, App Sequence 2524, App Sequence 2524, App Sequence 1179, App Sequence 1179, App Sequence 256, App Sequence 193, App Sequence 193, App Sequence 5, Appli
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Sequence 1457, Ap
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Sequence 8318, Ap
Sequence 13, Appl
                                                                                                                                                      April 29, 2005, 05:17:55 ; Search time 52.6622 Seconds (without alignments) 559.282 Million cell updates/sec
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(cgn2_6/ptodata/1/ina/5A_COMB.seq:*

(cgn2_6/ptodata/1/ina/5B_COMB.seq:*

(cgn2_6/ptodata/1/ina/6A_COMB.seq:*

(cgn2_6/ptodata/1/ina/6B_COMB.seq:*

(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                         version 5.1.6
- 2005 Compugen Ltd.
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                                                                                                                                                                                                                                                                                                                                                                                                            1202784 seqs, 818138359 residues
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Maximum Match 100%
Listing first 45 summaries
                                                                                                              - nucleic search, using sw model
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Copyright (c) 1993
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seq length: 200000000
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Sequence 11818 Application US/09949016
; Sequence 11818 Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VEWTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; FILE REPRENCE: CLOOU1307
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; PRIOR FILING DATE: 2000-09-08
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOCTHARE: FBELEGE for Windows Version 4.0
; SEQ ID NO 11818
                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Hinchel, Gregory J.
TILE REFERENCE: 38-10(15849) B.
CURRENT APPLICATION NUMBER: 1001-07-10
PRIOR FILING DATE: 2001-07-10
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
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88.9%; Pred. No. 3.8e+02;
iive 0; Mismatches 2; Indels 0;
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                                                                                                           Length 601;
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82.2%; Score 14.8; DB 4;
Best Local Similarity 88.9%; Pred. No. 4.6e+02;
Matches 16; Conservative 0; Mismatches 2;
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Best Local Similarity 88.9%;
Matches 16; Conservative (
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Best Local Similarity 88.5
Matches 16; Conservative
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ORGANISM: Human
     ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-62926
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LENGTH: 981
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APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: 60/241, 755
CURRENT FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-0-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
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APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: 60/2414
FRIOR PILING DATE: 2000-10-20
FRIOR FILING DATE: 2000-10-03
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82.2%; Score 14.8; DB 4; Length 601;
Best Local Similarity 88.9%; Pred. No. 4.6e+02;
Matches 16; Conservative 0; Mismatches 2; Indels (
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88.9%; Pred. No. 4.6e+02;
tive 0; Mismatches 2; Indels
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 19322
LENGTH: 601
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 62926
LENGTH: 601
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; Sequence 62925, Application US/09949016
; Patent No. 6812339
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Best Local Similarity 88.9
Matches 16; Conservative
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US-09-949-016-19322
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US-09-949-016-62925
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                                                                                                                                               TYPE: DNA
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GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ABERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3692, Application US/09902540

| Sequence 3692, Application US/09902540
| Patent No. 68334447
| GENERAL INFORMATION:
| APPLICANT: Hinkle, Gregory J.
| APPLICANT: Hinkle, Gregory J.
| APPLICANT: Hinkle, Gregory J.
| APPLICANT: Stater, Steven C.
| APPLICANT: Stater, Steven C.
| TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFRENCE: 38-10(15849)B
| CURRENT FILING DATE: 2001-07-10
| PRIOR APPLICATION NUMBER: 60/217,883
| PRIOR FILING DATE: 2000-07-10
| NUMBER OF SEQ ID NOS: 16825
| SEQ ID NO 3692
| LENGTH: 879
                                                                                                                                                                           APPLICANT: FRASER, CLAIRE M.
APPLICANT: FRASER, CLAIRE M.
APPLICANT: VENTER, John C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PATENTIN Ver. 2.1
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Pred. No. 7e+02;
0; Mismatches 1;
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Pred. No. 2e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
OTHER INFORMATION: H37Rv
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                                                              Sequence 1, Application US/09103840A Patent No. 6294328
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93.8%;
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88.9%;
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Best Local Similarity 93.89,
Enhes 15; Conservative
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Best Local Similarity 88.9
Matches 16, Conservative
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LENGTH: 4411529
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                                                                                                                                                 Sequence 13555, Application US/09949016
Fatent No. 6812339
GENERAL INFORMATION:
FATENCE INFORMATION:
FATENCE OF INVENTION: POLYWORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
FILE REFERENCE: CLO01307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PELING DATE: 2000-04-14
FRIOR FILING DATE: 2000-10-20
FRIOR PELICATION NUMBER: 60/241,758
FRIOR PELICATION NUMBER: 60/231,498
FRIOR RELING DATE: 2000-10-03
FRIOR PELING DATE: 2000-10-03
FRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
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Patent No. 6294328
GENERAL INFORMATION:
APPLICANT: FLEISCHVAN, Robert D.
APPLICANT: FRASER, Claire M.
APPLICANT: PRASER, Claire M.
APPLICANT: WHITE, Owen R.
TITLE OF INVENTION: TUBERCULOSIS
TITLE OF INVENTION: TUBERCULOSIS
TITLE OF INVENTION: TUBERCULOSIS
TITLE OF INVENTION NUMBER: US/09/103,840A
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2.
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OTHER INFORMATION: "n" bases at various positions throughout the sequence
OTHER INFORMATION: represent a, t, c or g
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TGCGTCGACGCAGGGGG 18
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88.9%;
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Best Local Similarity
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Best Local Similarity
Matches 16; Conserv
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ORGANISM: Human
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LENGTH: 4403765
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LENGTH: 17021
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US-09-103-840A-2
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APPLICANT: Marc J. Rubenfield et al.

Sequence 281, Application US/09252991A

Sequence 281, Application US/09252991A

Sequence 281, Application US/09252991A

Sequence 281, Application CSIT/95

GENERAL INFORMATION:

APPLICANT: Marc J. Rubenfield et al.

APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION:

TITLE OF INVENTION:

TITLE OF INVENTION:

FILE REFERENCE: 107196.136

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT PILING DATE: 1999-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                     Sequence 25.24, Application US/09489039A

Patent No. 6610836

GENERAL INFORMATION:
APPLICANT: GATY BRECON et. al
APPLICANT: GATY BRECON ET. al
TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
FILE REPRENCE: 2709.2004001
CURRENT APPLICATION NUMBER: US/09/489,039A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ 1D NOS: 14342
SEQ 1D NO 2524
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                                              80.0%; Score 14.4; DB 4; Length 1545; 93.8%; Pred, No. 6.8e+02;
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                                                                                                  1; Indels
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80.0%; Score 14.4; DB 4;
Best Local Similarity 93.8%; Pred. No. 6.7e+02;
Matches 15; Conservative 0; Mismatches 1;
                                                                                                  Mismatches
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US-09-252-991A-281
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Best Local Similarity 93.8
Matches 15, Conservative
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       US-09-252-991A-11565
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LENGTH: 1785
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Patent No. 6551795

GENERAL INFORMATION:

Patent No. 6551795

GENERAL INFORMATION:

TITLE OF INVENTION:

TITLE OF INVENTION:

ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION:

ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION:

ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT FILING DATE: 1999-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 11565

LENGTH: 1545
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Sequence 251, Application US/09252991A

Sequence 251, Application US/09252991A

Sequence 251, Application US/09252991A

Sequence 251, Application US/09252991A

Fater No. 6551795

GENERAL INFORMATION:

MUCLEIC AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;

TITLE OF INVENTION: AREUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION: AREUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT FILING DATE: 107196.136

CURRENT FILING DATE: 1999-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR PELING DATE: 1998-02-18

PRIOR PLING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NOS: 33142
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                                                                                                                                                                                                                                                                                                                80.0%; Score 14.4; DB 4; Length 996; ilarity 93.8%; Pred. No. 7e+02; Conservative 0; Mismatches 1; Indels C
; CURRENT APPLICATION NUMBER: US/09/252,991A; CURRENT FILING DATE: 1999-02-18; PRIOR APPLICATION NUMBER: US 60/074,788; PRIOR FILING DATE: 1998-02-18; PRIOR FILING DATE: 1998-07-27; NUMBER OF SEQ ID NOS: 33142; LENGTH: 996
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ORGANISM: Pseudomonas aeruginosa
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Best Local Similarity
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April 29, 2005, 06:00:59 ; Search time 241.419 Seconds (without alignments) 453.893 Million cell updates/sec
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Sequence 31, P
Sequence 39, P
Sequence 41, P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-068-160-31
US-10-194-035-39
US-10-194-035-41
US-10-666-022-3
US-10-466-755-7
US-10-489-597-19
US-10-068-160-16
US-10-068-160-16
US-10-068-160-19
US-10-08-16-19
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Maximum Match 100%
Listing first 45 summaries
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Sequence 509, App Sequence 542, App Sequence 7, Appli Sequence 35, Appli	4 6 6		Sequence 16, Appl Sequence 4, Appli Sequence 10, Appl						Seguence 88, Appl Seguence 167975, Seguence 45085, A	9 6
US-09-874-991C-509 US-09-874-991C-542 US-10-068-160-7 US-10-068-160-35	US-10-194-035-40 US-10-194-035-81 US-10-194-035-82		0-666-022-1 0-486-755-4 0-486-755-1	US-10-486-755-13 US-10-486-755-18	US-10-486-755-20 US-10-486-755-25 US-10-499-597-14	US-10-499-597-21 US-09-874-991C-519 US-09-874-991C-531	US-10-425-115-155944 US-10-739-096-34 US-10-494-364-34	US-10-425-114-24809 US-10-425-115-167520 US-10-194-035-83	US-10-194-035-88 US-10-425-115-167975 US-10-437-963-45085	US-10-437-963-4 US-10-156-761- US-10-260-238-4 US-09-764-877-95
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ALIGNMENTS

US-10-068-160-14

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Sequence 14, Application US/10068160

Sequence 14, Application US/10060440A1

Sublication No. US20030060440A1

GENERAL INPORMATION:

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE

APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES

APPLICANT: ISHII, Ken

APPLICANT: ISHII, Ken

APPLICANT: USHII, Ken

TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE

FILE REFERENCE: 4239-61999

CURRENT APPLICATION NUMBER: US/10/068,160

CURRENT PILING DATE: 2002-02-06

PRIOR PILING DATE: 1999-04-12

NUMBER OF SEQ ID NOS: 120

SOFTWARE: PATENTION NUMBER: 60/128,898

PRIOR PILING DATE: 1999-04-12

SOFTWARE: PATENTION NUMBER: 0.31

SOFTWARE: SECRETARY

SEQ ID NO 14

LENGTH: 18
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ORGANISM: Artificial Sequence
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US-10-194-035-41
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LENGTH: 20
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; Sequence 39, Application NO. US20030144229A1
; Deblication NO. US20030144229A1
; GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE 5 PAPLICANT: SERETAND NOF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: ISHII, Ken
APPLICANT: USHII, Ken
APPLICANT: USHII, Ken
APPLICANT: USHII, Ken
CURRENT PERERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT PILING DATE: 2002-07-12
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SPROR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE PARENTH VET. 2010-01-14
SOFTWARE PARENTH VET. 2010-01-14
SOFTWARE PARENTH VET. 2010-01-14
GENERAL INFORMATION:

GENERAL INFORMATION:

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GENERAL INFORMATION:

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: HEALTH AND HUMAN SERVICES

APPLICANT: KLINMAN, Dennis

APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES

TITLE OF INVENTION: OLIGODEOXYNUCLECTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE

FILE REFERENCE: 4239-61999

CURRENT APPLICATION NUMBER: 05/10/068,160

CURRENT APPLICATION NUMBER: 60/128,898

PRIOR FILING DATE: 1999-04-12

NUMBER OF SEQ ID NOS: 120

SOFTWARE PATENTING VALUES: 120

SOFTWARE PATENTING PATE: 1399-04-12
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US-10-194-035-39
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Pred. No. 26;
; Mismatches 0;
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Local Similarity 100.0%;
Les 18; Conservative 0
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US-10-068-160-31
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LENGTH: 20
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LENGTH: 20
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Sequence 3, Application US/10666022

Publication No. US20040105872A1

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: The Government of the United States of America, as represented by the APPLICANT: Rinman, Dennis M.
APPLICANT: Klinman, Dennis M.
APPLICANT: WITHOUN OF TREATING AND PREVENTING INFECTIONS IN IMMUNOCOMPROMISE)
TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
TITLE OF INVENTION: 2003-09-17
CURRENT FILING DATE: 2003-09-17
PRIOR APPLICATION NUMBER: US 60/411,944
US-10-194-035-41
US-10-194-035-41
US-10-194-035-41
US-10-194-035-41
US-10-194-035-41
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: USHITHELY! Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
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100.0%; Score 18; DB
Best Local Similarity 100.0%; Pred. No. 26;
Matches 18; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT APPLICATION NUMBER: US/10/194,035
PRIOR APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
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ORGANISM: Artificial Sequence
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SOFTWARE: Patentin version 3.1
SEQ ID NO 3
LENGTH: 20
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS
APPLICANT: HE GOVERNMENT OF THE SECRETARY OF THE DEPARTMENT OF HEALTH AND
APPLICANT: HUMAN SERVICES
APPLICANT: HIMMAN SERVICES
APPLICANT: Klinman, Dennis M.
APPLICANT: Gursel, Mayda
APPLICANT: Werhelyi, Daniela
APPLICANT: Werhelyi, Daniela
APPLICANT: Werhelyi, Daniela
APPLICANT: Werhelyi, Daniela
APPLICANT: Werlow NUMBER: US/10/486,755
CURRENT APPLICATION NUMBER: US 60/312,190
PRIOR FILING DATE: 2001-08-14
PRIOR FILING DATE: 2002-08-13
NUMBER OF SEQ 1D NOS: 127
SOFTWARE: PatentIn version 3.2
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APPLICANT: REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF HEALTH AND
APPLICANT: HUMAN SERVICES
APPLICANT: HIMMAN, Dennis M.
APPLICANT: Gureel, Mayda
APPLICANT: Verbely, Danniela
TITLE OF INVENTION: METHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REFERENCE: 4239-67746
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    OTHER INFORMATION: n is any base, or is no base at all
US-10-486-755-7
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CURRENT FILING DATE: 2004-02-12
PRIOR APPLICATION NUMBER: US 60/312,190
PRIOR FILING DATE: 2001-08-14
PRIOR PILING DATE: 2001-08-14
PRIOR PILING DATE: 2002-08-13
NUMBER OF SEQ ID NOS: 127
SOFTWARE: Patentin version 3.2
LENGTH: 20
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US-10-486-755-21
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Publication No. US20040241841A1
Sequence 7, Application US/10486755
Publication No. US20040241841A1
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Best Local Similarity
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: SIGNED BY THE DEPARTMENT OF HEALTH AND HUMAN SERVICES APPLICANT: Klinman, Dennis M. APPLICANT: Rouse, Barry T. APPLICANT: Zheng, Mei TILLE OF INVENTION: USE OF CPG OLIGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS FILE REFERENCE: 4239-64125-02 CURRENT PILING DATE: 2004-06-17 CURRENT APPLICATION NUMBER: US 60/343,457 PRIOR FILING DATE: 2001-12-19 PRIOR FILING DATE: 2001-12-20 NUMBER OF SEQ ID NOS: 106 SEQ ID NOS: 106 SEQ ID NOS: 106 SEQ ID NOS: 106 SEQ ID NOS: 107 LENGTH: 20
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APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLICODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE FILE REPERRNCE: 4219-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT APPLICATION DATE: 2002-02-06
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                      DB 18;
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26;
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                    100.0%; Score 18; 100.0%; Pred. No.
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US-10-499-597-19
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PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                          Sequence 19, Application US/10499597
Publication No. US20050026245A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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                                                               Conservative
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Query Match
Best Local Similarity
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Best Local Similarity
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic HDR
US-09-874-991C-542
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| Sequence 542, Application US/09874991C
| Publication No. US20040052763A1
| GENERAL INFORMATION:
| APPLICANT: MOND, JAMES J.
| APPLICANT: FLORA, MICHAEL
| APPLICANT: KLINMAN, DENNIS M.
| TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
| FILE REFERENCE: 07787.0042.0
| CURRENT APPLICATION NUMBER: US/09/874,991C
| CURRENT APPLICATION NUMBER: US/09/874,991C
| PRIOR PILING DATE: 2001-06-07
| PRIOR FILING DATE: 2000-06-07
| NUMBER OF SEQ ID NOS: 620
| SEQ ID NO 542
| LENGTH: 20
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APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REPERENCE: 07797.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR PILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PACENTIN Ver. 2.1
SEQ ID NO 509
LENGTH: 20
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Pred. No. 1.6e+02;
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Pred. No. 1.6e+02;
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                                                                                                                                          ; sequence 509, Application US/09874991C; Publication No. US20040052763A1; GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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94.4%;
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Best Local Similarity 94.4%;
Matches 17; Conservative
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Best Local Similarity
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US-09-874-991C-509
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CURRENT APPLICATION NUMBER: US/10/068,160

CURRENT APPLICATION NUMBER: 60/128,898

PRIOR FILING DATE: 1999-04-12

NUMBER OF SEQ ID NOS: 120

SOFTWARE: PATENTIN VERSION 3.1

SEQ ID NO 19
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US-09-874-991C-498
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TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 498
LENGTH: 20
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       Length 18;
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       Query Match 91.1%; Score 16.4; DB 14;
Best Local Similarity 94.4%; Pred. No. 1.7e+02;
Matches 17; Conservative 0; Mismatches 1;
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                                                                                                                                                                                                                                                               Sequence 19, Application US/10068160
Publication No. US20030060440A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Gaps

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APPLICANT: THE GOVERNEENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: THE GOVERNEENT, DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINAMA, Dennis
APPLICANT: KLINAMA, Dennis
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: USRTHELYI, Daniela
TITLE OF INVENTION: OLIGODECXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR PILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PATENTIAN VERSION 3.1
ENGTHAR: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: ISHII, Ken APPLICANT: ISHII, Ken APPLICANT: ISHII, Ken APPLICANT: TISHII, Ken APPLICANT: TISHII, Ken APPLICANT: VERTHELYI, Daniela TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 1090-202-06
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 35
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Publication No. US20030060440A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: USRTHELYI, Daniela
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91.1%; Score 16.4; DB 14; Length 20;
Best Local Similarity 94.4%; Pred. No. 1.6e+02;
Matches 17; Conservative 0; Mismatches 1; Indels
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Best Local Similarity 94.4%; Pred. No. 1.6e+02;
Matches 17; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , OTHER INFORMATION: Oligonucleotide US-10-068-160-7
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US20030060440A1
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ORGANISM: Artificial Sequence
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Publication No.
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Search completed: April 29, 2005, 12:35:46 Job time : 246.419 secs ling land and were

us-10-068-160a-17.rnpb

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April 29, 2005, 06:00:59; Search time 241.419 Seconds (without alignments) 453.893 Million cell updates/sec
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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Maximum DB seq length: 200000000
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18
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Perfect score:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	* Query Match Length DB 1	DB	QI	Description	
1	18	100.0	18	14	US-10-068-160-17	Sequence 17, Appl	
7	18	100.0	20	18	US-10-666-022-5	Seguence 5, Appli	
٣	18	100.0	20	18	US-10-486-755-8	Sequence 8, Appli	
Ω 4	16.4	91.1	687	18	US-10-437-963-58926	Sequence 58926, A	
2	16.4	91.1	96256	18	US-10-775-169-352	Sequence 352, App	
9	16	88.9		18	US-10-767-701-4709	Sequence 4709, Ap	
0	16	88.9		18	US-10-437-963-55777	Sequence 55777, A	
80	15.4	85.6	224	18	US-10-425-115-101101	Sequence 101101,	
ο Ο	15.4	85.6	250	18	US-10-425-115-51314	Seguence 51314, A	
0 0	15.4	85.6	264	18	US-10-425-115-165902	Sequence 165902,	
c 11	15.4	85.6	369	18	US-10-437-963-3377	Sequence 3377, Ap	

Sequence 19238, A Sequence 167975, Sequence 166714, Sequence 161395, A Sequence 1956, Ap Sequence 1956, Ap Sequence 1956, Ap Sequence 1700, Ap Sequence 1700, Ap Sequence 11715, A Sequence 22077, A Sequence 23136, App Sequence 11115, A Sequence 11115, A Sequence 11115, A Sequence 11115, A Sequence 299, Appl Sequence 29137, App Sequence 29137, App Sequence 2923, Appl Sequence 222, App App App App App App App App App Ap	RICA, REPRESERSENTO INDUCE AN 1
US-10-767-701-19238 US-10-425-115-167975 US-10-425-115-167975 US-10-425-115-161395 US-10-425-115-161395 US-10-198-846-1956 US-10-198-846-1956 US-10-437-963-73996 US-10-437-963-73996 US-10-425-115-14131 US-10-425-115-147315 US-10-425-115-177315 US-10-425-115-177315 US-10-425-115-177315 US-10-425-115-177315 US-10-425-115-177315 US-10-425-115-177315 US-10-425-115-17315 US-10-425-115-17315 US-10-425-115-17315 US-10-425-116-1115 US-10-425-116-1115 US-10-425-116-1115 US-10-425-1115 US-10-425-1115 US-10-425-114-2950 US-10-445-282 US-10-47-963-341635 US-10-47-963-341635 US-10-47-963-341635 US-10-47-963-3732 US-10-47-963-72702 US-10-45-714-2533 US-10-45-714-2533 US-10-45-714-2533 US-10-45-714-2533 US-10-45-714-2533	ALIGNMENTS HEH UNITED STATES OF A GENT OF HEALTH AND HUM ARVICLEOTIDE AND ITS US 5/10/068,160 06 128,898 128,898 128,898 138 14; 15 SCOTE 18; DB 14; 16 Pred. No. 1e+02; 17 Pred. No. 1e+02; 18 18 18 18 18 18 18 18 18 18 18 18 18 1
885.6 4373 1885.6 4373 1885.6 4373 1885.6 4887 19885.6 4887 19885.6 4887 19885.6 618 18885.6 618 18	ALL Application US/10068160 No. US20030060440A1 THE GOVERNMENT OF THE UN SECRETARY, DEPARTMENT O KLINMAN, Dennis ISHII, Ken VERTHELYI NUENTION: OLICODEOXYNUCLE ENCE: 4239-61999 FLICATION NUMBER: 60/128,89 FRICE: 1999-04-12 SEQ ID NOS: 120 PATENTIN VERSION 3.1 ATTIFICIAL SEQUENCE ORMATION: Oligonuclectide -17 TGCGCCGGCGGGGGGG 18 TGCGCCGGCGCGGGGGG 18
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RESULT 1 US-10-068-160-17 Sequence 17, Application No. US200 Publication No. US200 GENERAL INFORMATION: APPLICANT: THE GOVE APPLICANT: ISHIL, APPLICANT: ISHIL, APPLICANT: VERTHEL, TITLE OF INVENTED: TITLE REFERENCE: 423 CURRENT FILING DATE: PRIOR PLICATION NO. SOFTWARE: PALICATION NO. SOFTWARE: NO. NUMBER OF SEQ ID NO. SOFTWARE: PALICATION NO. SOFTWARE: NO. NUMBER OF SEQ ID NO. SOFTWARE: PALICATION NO. SOFTWARE: NO. SOFTW

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APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
APPLICANT: Barbazuk, Brad
APPLICANT: Barbazuk, Brad
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(51221)B
CURRENT APPLICATION VMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
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                                                    Gaps
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### APPLICANT: Twine, Natalie
### APPLICANT: Trepicchio, William
### TITLE OF INVENTION: Method for Monitoring Drug Activities in Vivo
### RITER OF INVENTION: Whethod for Monitoring Drug Activities in Vivo
### RITER OF INVENTION: WHENER: US/10/775,169
### CURRENT APPLICATION NUMBER: US/10/775,169
### CURRENT FILING DATE: 2004-02-11
### WUMBER OF SEQ ID NOS: 5278
### SEQ ID NO 352
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  100.0%; Score 18; DB 18; Length 20; 100.0%; Pred. No. 99; ive 0; Mismatches 0; Indels
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Pred. No. 1.9e+02;
0; Mismatches 1;
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; OTHER INFORMATION: Clone ID: PAT_MRT4530_60597C.1
US-10-437-963-58926
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94.4%; Pred. No. 47;
tive 0; Mismatches
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Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                 APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
Query Match
Best Local Similarity 100.
Matches 18; Conservative
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Best Local Similarity 94.4
Matches 17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                            US-10-437-963-58926/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 58926
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APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                      APPLICANT: The Government of the United States of America, as represented by the APPLICANT: The Government of the Department of Health and Human Services APPLICANT: Secretary of the Department of Health and Human Services APPLICANT: Aliman, Dennish M.
APPLICANT: Varinely, Dennish M.
TITLE OF INVENTION: METHOD OF TREATING AND PREVENTING INFECTIONS IN IMMUNOCOMPROMISED TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG FILE REFERENCE: 4239-66899
CURRENT APPLICATION NUMBER: US/10/666,022
CURRENT FILING DATE: 2003-09-17
PRIOR FILING DATE: 2002-09-18
NUMBER OF SEQ ID NOS: 181
SOFTWARE: Patentin version 3.1
SEQ ID NO 5
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF HEALTH AND
APPLICANT: HUMAN SERVICES
APPLICANT: HUMAN SERVICES
APPLICANT: Klinman, Dennis M.
APPLICANT: Gursel, Mayda
APPLICANT: Gursel, Mayda
TITLE OF INVENTION: MATHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REFERENCE: 4239-67746
CURRENT APPLICATION NUMBER: US/10/486,755
CURRENT FILING DATE: 2004-02-12
PRIOR APPLICATION NUMBER: 2001-08-14
PRIOR PLING DATE: 2001-08-14
PRIOR PLING DATE: 2002-08-13
NUMBER OF SEQ ID NOS: 127
SEQ ID NO SECOLE NOS: 127
LENGTH: 20
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LOCATION: (1). (20)
OTHER INFORMATION: n is a, c, g, or t, or no nucleotide
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Publication No. US20040241841A1
GENERAL INFORMATION:
                                                                        Sequence 5, Application US/10666022 Publication No. US20040105872A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: synthetic
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Best Local Similarity 100.
Matches 18; Conservative
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                                               US-10-666-022-5
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Sequence 51314, Application US/10425115
; Sequence 51314, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Cao, Yongwai
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants
; TITLE OF INVENTION: Plants
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
; FILE REFERENCE: 38-21(5322)B
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 369326
; SEQ ID NO 51314

LENGTH: 250
                                APPLICANT: La Rosa, Thomas J.
APPLICANT: As Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
TAPLICANT: Con, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
TITLE OF INVENTION: 18-21 (33.22) B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
CURRENT FILING DATE: 2003-04-28
SEQ ID NO 101101
LENGTH: 224
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US-10-425-115-101101
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OTHER INFORMATION: unsure at all n locations
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; Sequence 165902, Application US/10425115
; Publication No. US20040214272Al
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Exovalic, David K.
APPLICANT: Zhou, Yihua
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Publication No. US20040214272A1
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Matches 16; Conservative
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ORGANISM: Zea mays
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US-10-425-115-51314/c
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; Publication No. US2004012334341
; GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Easo, Yongwei
APPLICANT: Cao, Yongwei
APPLICANT: Cao, Yongwei
APPLICANT: Buukharov, Andrey A.
APPLICANT: Buukharov, Andrey A.
APPLICANT: Buukharov, Andrey A.
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Rice Nucleic Acid Molecules Associated With
TITLE OF STORY OF ACID NUMBER: US/10/437,963
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT PILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 55777

LENGTH: 2052
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88.9%; Score 16; DB 18; Length 2052;
Best Local Similarity 100.0%; Pred. No. 2.1e+02;
Matches 16; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match

88.9%; Score 16; DB 18; Length 654;
Best Local Similarity 100.0%; Pred. No. 2.9e+02;
Matches 16; Conservative 0; Mismatches 0; Indels
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US-10-767-701-4709
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US-10-437-963-55777
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21755 TCCGCCGCGCAGGGGG 21772
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ORGANISM: Oryza Bativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-437-963-55777/c
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LENGTH: 654
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Sequence 167975, Application US/10425115

Sequence 167975, Application US/10425115

Publication No. US20040214272A1

GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Eduly Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REPERENCE: 38-21(5322)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT PILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NOS: 369326
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PUblication No. US20040214272A1
GENERAL INFORMATION:
APPLICANT: APPLICANT: Kovalic, David K.
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Vucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B
CURRENT APPLICANTION NUMBER: US/10/425,115
CURRENT APPLICANTION NUMBER: US/10/425,115
CURRENT PILING DATE:
UNDMBER OF SEQ ID NOS: 369326
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     TITLE OF INVENTION: Plants and Uses Thereof For Plant Improvement FILE REFERENCE: 38-21(53535)B
CURRENT APPLICATION NUMBER: US/10/767,701
CURRENT FILING DATE: 2004-01-29
NUMBER OF SEQ ID NOS: 63128
LENGTH: 373
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                                                                                                                                                                                                                                                                                                                                     Query Match 85.6%; Score 15.4; DB 18; Best Local Similarity 94.1%; Pred. No. 6.3e+02; Matches 16; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85.6%; Score 15.4; DB 18; 94.1%; Pred. No. 6.18+02; iive 0; Mismatches 1;
                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Clone ID: LIB3480-033-P1-K1-F6
US-10-767-701-19238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: CLONE ID: MRT4577_84775C.1 US-10-425-115-167975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (1)..(437)
OTHER INFORMATION: unsure at all n locations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     280 TGCGCCGGCGCAGGGTG 264
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                                                                                                                                                                                       TYPE: DNA
ORGANISM: Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 94.1
Matches 16; Conservative
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ORGANISM: Zea mays
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US-10-425-115-167975/c
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; Publication No. US20040123343A1
; GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Cao, Yongwei
APPLICANT: Cao, Yongwei
APPLICANT: Boukharov, Andrey A.
APPLICANT: Boukharov, Andrey A.
APPLICANT: Boukharov, Andrey A.
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT APPLICATION NUMBER: US/10/437,963
; SEQ ID NOS: 204966
; SEQ ID NO 3377
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21 (53222) B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 165902
LENGTH: 264
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Publication No. US20040172684A1
GENERAL INFORMATION:
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Clone ID: PAT_MRT4530_10359C.1
US-10-437-963-3377
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Best Local Similarity 94.1%; Pred. No. 7e+02;
Matches 16; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: Clone ID: MRT4577_82887C.1 US-10-425-115-165902
                                                                                                                                                                                                                                                                                                                                  LOCATION: (1)..(264)
OTHER INFORMATION: unsure at all n locations
FEATURE:
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ORGANISM: Oryza sativa
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US-10-437-963-3377/c
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RESULT 15

US-10-425-114-14407/c

i Sequence 14407, Application US/10425114

i Publication No. US20040034888A1

i GENERAL INFORMATION:

i APPLICANT:

APPLICANT: Zhou, Yihua

i APPLICANT: Screen, Steven E

APPLICANT: Screen, Steven E

APPLICANT: Cao, Yongwai

i TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

FILE REFERENCE: 38-21(53313)B

CURRENT APPLICATION NUMBER: US/10/425,114

CURRENT FILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 73128

SEQ ID NO 14407

LENTH: 483
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0
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Pred. No. 5.98+02;
0; Mismatches 1; Indels 0;
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US-10-425-114-14407
; SEQ ID NO 166714
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; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID: MRT4577_83621C.1
US-10-425-115-166714
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Best Local Similarity 94.1%; Pr
Matches 16; Conservative 0;
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ORGANISM: Zea mays
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AE017233 Mycobacte
AE008002 Agrobacte
AE008003 Agrobacte
AJ224445 Sinorhizo
AC018939 Homo Bapi
AC141987 Rattus no
AC135864 Oryza Bat
AL591784 Sinorhizo
AB113111 Hepatitis
AB113312 Hepatitis
BN191370 Bqmm17044
CQ418035 Sequence
CQ425116 Sequence
CG425116 Sequence
CG425116 Sequence
CG425116 Sequence
BT014884 Arabidops
AL685781 Penicilli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      July 123
2 (bases 1 to 1405)
Klupp, B.G.
Klupp, B.G.
Direct Submission
Submitted (27-AUG-2003) Klupp B.G., Institute of Molecular Biology,
FedResCen Virus Diseases of Animals, Boddenblick 5A, D-17493
Greifswald - Insel Riems, GERWANY
Greifswald - Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                            SHES81560 1405 bp DNA linear VRL 27-APR-2004 Suid herpesvirus 1 strain Kaplan partial ORF1.2 and left end of unique long region.
                                                                                                                                                                         AK107743 Oryza sat
BD267140 Compositi
AK56661 Sequence
AX654633 Sequence
AL684370 Penicilli
AK061421 Oryza sat
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Klupp, B.G., Hengartner, C.J., Mettenleiter, T.C. and Enquist, L.W. Complete, annotated sequence of the pseudorabies virus genome J. Virol. 78 (1), 424-440 (2004)
                                                                                                                                                                                                                                                                                                                                                                           AJSÜISGO
AJSBISGO.1 GI:34368527
OKF1.2; unique long region.
Suid herpesvirus 1 strain Kaplan
Suid herpesvirus 1 strain Kaplan
Viruses; deDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirinae; Varicellovirus.
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3. _84
/note="inverted repeat of 442. .523"
/rpt_type=INVERTED
156. .251
/note="spaced direct imperfect repeats"
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                                                                                                                                                                                                                                                                                           ALIGNMENTS
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/strain="Kaplan"
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AC135864
SME591784
AB113311
                                                                                                    AB113312
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                             AE009036
SMAJ4445
AC018939
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BT014884
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BD267140
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AX654633
PM12D6G
AK061421
           AE017233
AE008002
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 repeat_region
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 SHE581560/c
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DEFINITION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
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REFERENCE
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JOURNAL
                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
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                                                                                                                                                                                                                                                                                                                           RESULT 1
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  AK12136 Oryza sat
AK060251 Oryza sat
AB017578 Pattus no
AY42718 Pseudomon
AC15162 Emiliania
CQ661719 Sequence
AL022315 Human DNA
AC149892 Kenopus t
AC149892 Kenopus t
AC149872 Homo sapi
AC133783 Homo sapi
AC13783 Homo sapi
AC148952 Otolemur
AC18956 Rattus no
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC144804 Gallus ga
AR496235 Sequence
AR511517 Sequence
                                                                   April 29, 2005, 04:31:54 ; Search time 712.216 Seconds (without alignments) 1224.620 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                     4708233 segs, 24227607955 residues
                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
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AR496235
AR511517
AK122136
AK060251
AB017578S1
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                                                 nucleic search, using sw model
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HS117715
AC149892
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AC151612
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AC148952
AC133256
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Gapop 10.0 , Gapext 1.0
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Maximum Match 100%
Listing first 45 su
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seq length: 200000000
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99b ets: *
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Perfect score:
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                                                OM nucleic
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PAT 22-SEP-2004
                                                                                                                                                                            Summary Statistics:
Sequencing vector: Plasmid; puCl8
Chemistry: Dye-terminator Big Dye.
Assembly program: Phrap version 0.990329.
* NOTE: This is a 'working draft' sequence. It currently
* consists of 14 contigs. Gaps between the contigs
* are represented as runs of N. The order of the pieces
* is believed to be correct as given, however the sizes
* of the gaps between them are based on estimates that have
* provided by the submittor.
* This sequence will be replaced
* by the finished sequence as soon as it is available and
* the accession number will be preserved.
* 1187 contig of 1187 bp in length
* 1288 12734: gap of unknown length
* 12635 12734: gap of unknown length
* 16557 26480: contig of 9722 bp in length
* 16557 26480: contig of 9732 bp in length
* 26581 26580: gap of unknown length
* 26591 29998: gap of unknown length
* 26592 36595: contig of 5791 bp in length
* 39595 36695: contig of 6597 bp in length
* 36596 39486: contig of 2791 bp in length
* 36596 39486: contig of 1313 bp in length
* 36596 39486: contig of 1735 bp in length
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* 36596 39486: contig of 1735 bp in length
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                            the order-orientation of the draft sequence was accomplished by
                                                                                                end information.
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                                                                                                                                             Funding agent: Programs for Genomic Applications (NHLBI)
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42421: gap of unknown length
116738: contig of 74317 bp in length
116838: gap of unknown length
159322: contig of 42484 bp in length
159422: gap of unknown length
177789: contig of 18367 bp in length
177889: gap of unknown length
181431: contig of 3842 bp in length
181531: gap of unknown length
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                                                                                                Lagan (http://lagan.stanford.edu/) and paired
                                                                          (http://baboon.math.berkeley.edu/mavid)
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Sequence 1195 from patent US 6703491.
AR496235 GI:52431710
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Best Local Similarity الاست.
- 17; Conservative
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BRGTAAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cheng, J.-F., Hamilton, M., Peng, Y., Mukherjee, S., Hosseini, R., Peng, Z., Malinov, I. and Rubin, E.M.

Peng, Z., Malinov, I. and Rubin, E.M.

Submitted (21-MAY-2003) Genome Sciences, Lawrence Berkeley National Laboratory, 1 Cyclotron Rd., Berkeley, CA 94720, USA

Cheng, J.-F., Hamilton, M., Peng, Y., Mukherjee, S., Hosseini, R., Peng, Z., Malinov, I. and Rubin, E.M.
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Submitted (24-JUN-2003) Genome Sciences, Lawrence Berkeley National
Laboratory, 1 Cyclotron Rd., Berkeley, CA 94720, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC144804 232176 bp DNA linear HTG 24-JUN-2003 Gallus gallus clone CH261-22A23, WORKING DRAFT SEQUENCE, 14 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
Phasianinae; Gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence has been compared to sequences of other species using Vista (http://www-gsd.lbl.gov/VISTA). The results can be viewed at:
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Cheng, J.-F., Hamilton, M., Peng, Y., Mukherjee, S., Hosseini, R., Direct Submission
Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                product="ORF1.2 protein"
protein_id="CAE46335.1"
db_xref="G1:34368529"
translation="MDVERGTAAG"
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Web site: http://pga.lbl.gov
Center Code: PGABERK
Center Project Name: G104
Bac Clone Name: CH261-22A23
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751. .958
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                                                                                           rpt_unit="751. .776"
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HTG; HTGS PHASE2; HTGS DRAFT.
Gallus gallus (chicken)
Gallus gallus
                                                                                                                                                              codon_start=1
product="ORF1.2
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                                                                                                                252. .>1405
note="ORF1.2"
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/note="ORF1.2
alternative"
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Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Carninci, P., Doi, K., Fujimura, T., Fukuda, S., Hanagaki, T., Hara, A., Hashizume, W., Hayashidak, K., Hayashizaki, Y., Hayatsu, N., Hiramcto, K., Hiraoka, T., Hori, F., Horta, I., Iida, J., Iida, Y., Ikeda, R., Imamura, K., Imamura, K., Imamura, K., Imamura, K., Imamura, K., Imamura, K., Kanagawa, S., Katoh, H., Kawagashira, N., Kawai, J., Kawagashira, N., Kawai, J., Kobayashi, M., Kakuda, F., Kojima, K., Kojima, Y., Kodo, S., Konno, H., Kouda, M., Kodam, T., Kojima, K., Kojima, Y., Kodawa, T., Li, C., Lu, M., Masuda, H., Matsubara, K., Matsuyama, T., Miura, J., Miyazaki, A., Mizuno, K., Murakami, K., Matsuyama, T., Miura, J., Miyazaki, A., Matsuyama, T., Makamura, M., Namiki, T., Narikawa, R., Nikura, J., Nishi, K., Oka, M., Ooka, H., Osato, M., Ota, Y., Otomoo, Y., Ryu, R., Satoh, K., Sakai, C., Sakai, K., Shinasaki, T., Sasaki, D., Sato, K., Satoh, K., Shinasaki, T., Sasaki, T., Sagabe, Y., Sugami-Takeda, Y., Tagami, M., Tagami-Takeda, Y., Tagami, M., Tagami-Takeda, Y., Tagami, M., Tagami-Takeda, Y., Tagami, M., Yamada, H., Yamamoto, M., Yasunishi, A., Yazaki, J., Vokomizo, S., and Yoshimura, A., Yamamoto, M., Yasunishi, A., Yazaki, J., Yochi, Sano, K., Shimaki, K., Shimaki, K., Sakai, K., Shimara, A., Shimaki, Y., Ueda, M., Waki, K., Xie, Q., Yahagi, W., Yamada, H., Yamamoto, M., Yasunishi, A., Yazaki, J., Yochiero, M., Sano, K., Shimaki, Y., Wasunishi, A., Yazaki, J., Yochiero, M., Yahagi, W., Yamada, H., Yamamoto, M., Yasunishi, A., Yazaki, J., Yochiero, M., Sano, A., Yanagan, A., Yanagan, A., Yanamoto, M., Yasunishi, A., Yazaki, J., Yochiero, M., Yanagi, W., Yamada, H., Yamamoto, M., Yasunishi, A., Yazaki, J., Yochiero, M., Yanagi, W., Yanagan, A., Yamada, H., Yamamoto, M., Yasunishi, A., Yazaki, J., Yochiero, M., Yasunishi, A., Yasunishi, A., Yochiero, M., Yanagi, W., Yasunishi, Yanagi, W., Yanagi, W., Yanagi, W., Yanagi, W., Yanagi, W., Yanagi, 
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URL: http://cdnaol.dna.affrc.go.jp/cDNA/
NIAS Rice Full-Length cDNA Project Team: Kikuchi,S., Satoh,K.,
Nagata,T., Kawagashira,N., Doi,K., Kishimoto,N., Yazaki,J.,
Ishikawa,M., Yamada,H., Ooka,H., Hotta,I., Kojima,K., Namiki,T.,
Ohneda,B., Yahagi,W., Suzuki,K., Li,C., Ohtsuki,K., Shishiki,T.,
Yamamoto,M. and Nakahama,Y.
FAIS Genome Sequencing & Analysis Group: Otomo,Y., Iida,Y.,
FAIS Genome Sequencing & Analysis Group: Otomo,Y., Iida,Y.,
Rulan,M., Kodama,T., Kurosaki,T., Kusumegi,T., Lu,M.,
Malura,J., Mizuno,K., Narikawa,R., Niikura,J., Oka,M.,
Ryu,R., Sugano,S., Sugiyama,A., Suzuki,Y., Tsunoda,Y., Ueda,M.,
Xie,Q., Yokomizo,S., Yoshimura,A., Matsubara,K. and Murakami,K.
Genome Exploration Research Group in Riken Genomic Soiences Center
and Genome Science Laboratory in Riken: Adachi,J., Aizawa,K.,
Atamira,T., Arakawa,T., Carninci,P., Pukuda,S., Hanagaki,T.,
Hara,A., Hashizume,W., Haysshida,K., Hayatsu,N., Hiramoto,K.,
Hiraoka,T., Hori,P., Iida,J., Imamura,K., Imotani,K., Ishii,Y.,
Itch,M., Kagawa,I., Kanagawa,S., Karch,H., Kawai,J.,
Kishikawa-Hirozane,T., Kanagawa,S., Karch,H., Kawai,J.,
Kishikawa-Hirozane,T., Kanagawa,S., Karch,H., Kawai,J.,
Kishikawa-Hirozane,T., Matsuyama,T., Miyazaki,R., Ohno,M., Osato,N.,
Ota,Y., Saitoh,H., Sano,H., Sasai,K.,
Sakazume,N., Nishi,K., Nomusaki,R., Shibata,K.,
Iida,Y., Sugano,S., Fujimura,T., Suzuki,Y., Tsunoda,Y.,
Kurosaki,T., Kodama,T., Masuda,H., Kobayashi,M., Xie,O., Lu,M.,
Narikawa,R., Sugiyama,A., Mizuno,K., Yokomizo,S., Niikura,J.,
Ikeda,R., Ishibiki,J., Kawamata,M., Yoshimura,A., Miura,J.,
Kusumegi,T., Oka,M., Ryu,R., Ueda,M., Matsubara,K., RIKEN:
Kuswai,J., Carninci,P., Adachi,J., Alazwa,K., Rikeni
Hara,A., Hashidume,W., Hayatsu,N., Imotani,K., Ishii,Y., Itoh,M.,
Saito,R., Sasaki,D., Sato,K., Shibata,K., Shinagawa,A., Shiraki,T.,
Yoshino,M. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (31-JAN-2003) Shoshi Kikuchi, National Institute of Agrobiological Sciences, Department of Molecular Genetics, Head of Laboratory of Gene Expression; 2-1-2 Kannondai, Tsukuba, Ibaraki 305-8602, Japan (E-mail:skikuchi@nias.affrc.go.jp, Tel:81-29-838-7007, Fax:81-29-838-7007)
This clone is one of the 32K full-length cDNA clones from japonica
                                                                                                                                                                                                                                                                                                                                                                                                                           Science 301 (5631), 376-379 (2003)
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Kikuchi, S.
Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
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FLI_CDNA, CAP trapper.
Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Bukaryota, Viridiplantea; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzeae; Oryza.
                         Unclassified.

1 (bases 1 to 448)

Homburger, S.A., Ebens, A.J. Jr., Erickson, C.S., Francis-Lang, H.L., Margolis, J.S., Reddy, B.P., Ruddy, D.A. and Buchman, A.R.
Drosophila sequences
Patent: US 6703491-A 1195 09-MAR-2004;
Location/Qualifiers
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Homburger,S.A., Ebens,A.J. Jr., Erickson,C.S., Francis-Lang,H.L.,
Margolis,J.S., Reddy,B.P., Ruddy,D.A. and Buchman,A.R.
Drosophila sequences
Patent: US 6703491-A 16477 09-MAR-2004;
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91.1%; Score 16.4; DB 6; Length 448;
Best Local Similarity 94.4%; Pred. No. 9.3e+03;
Matches 17; Conservative 0; Mismatches 1; Indels (
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94.4%; Pred. No. 9.3e+03;
iive 0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DNA"
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AUTHORS
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FEATURES
                                                                           REFERENCE
                                                                                                           AUTHORS
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*Admanco, M.
FAIS Genome Sequencing & Analysis Group: Otomo, Y., Iida, Y.,
Rodama, T., Kusenegi, T., Lu, M., Kobayashi, M.,
Rodama, T., Kursenegi, T., Lu, M., Miura, J.,
Mizuno, K., Narikawa, R., Niikura, J., Oka, M., Ryu, R., Sugano, S.,
Sugiyama, A., Suzuki, Y., Tsunoda, Y., Ueda, M., Xie, Q., Yokomizo, S.,
Yoshimura, A., Matsubara, K. and Murakami, K.
Genome Exploration Research Group in Riken: Adachi, J., Aizawa, K.,
Akimura, T., Arakawa, T., Carninci, P., Fukuda, S., Hanagaki, T.,
Hara, A., Hashizume, W., Hayashida, K., Hayatsu, M., Hiramoto, K.,
Itoh, M., Kagwa, T., Kanagawa, S., Katch, H., Kawai, J.,
Kishikawa-Hirozane, T., Kojima, Y., Katch, H., Kouda, M.,
Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M.,
Nakamura, M., Nishik, K., Nomura, K., Shinagawa, A., Shiraki, T.,
Sasaki, D., Sato, K., Shibata, K., Shinagawa, A., Shiraki, T.,
Takaku-Akahira, S., Tanaka, T., Tomaru, A., Toya, T., Waki, K.,
Yasunishi, A., and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rice.
URL. http://cdna01.dna.affrc.go.jp/cDNA/
NIAS Rice Full-Length cDNA Project Team: Kikuchi,S., Satoh,K.,
Nagata,T., Kawagashira,N., Doi,K., Kishimoto,N., Yazaki,J.,
Ishikawa,M., Yamada,H., Ooka,H., Hotta,I., Kojima,K., Namiki,T.,
Ohneda,E., Yahagi,W., Suzuki,K., Li,C., Ohtsuki,K., Shishiki,T. and
Yamamoto,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ROD 20-NOV-1999
                                                                                                                                                                                                                                                                                                                                    Submitted (05-DEC-2001) Shoshi Kikuchi, National Institute of Agrobiological Sciences, Department of Molecular Genetics, Head of Laboratory of Gene Expression; 2-1-2 Kannondai, Tsukuba, Ibaraki 305-8602, Japan (E-mail:skikuchi@nias.affrc.go.jp, Tel:81-29-838-7007, Fax:81-29-838-7007, Tel:81-29-838-7007, Fax:81-29-838-7007, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AB017578.1 GI:5926761
cGMP-binding cGMP-specific phosphodiesterase; alternative splicing.
Sakazume, N., Sano, H., Sasaki, D., Sato, K., Satoh, K., Shibata, K., Shinagawa, A., Shiraki, T., Shishiki, T., Sogabe, Y., Sugano, S., Sugiyama, A., Suzuki, K., Suzuki, Y., Tagami, M., Tagami-Takeda, Y., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Tanaka, T., Tomaru, A., Yoya, T., Tsunoda, Y., Ueda, M., Waki, K., Xie, Q., Yahagi, W., Yamamoto, M., Yasunishi, A., Yazaki, J., Yokomizo, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Oryza sativa (japonica cultivar-group)"
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94.4%; Pred. No. 7.1e+03;
cive 0; Mismatches 1;
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/cultivar="Nipponbare"
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/clone="001-004-C03"
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Rattus norvegicus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The Rice Full-Length CDNA Consortium, National Institute of Agrobiological Sciences Rice Full-Length CDNA Project Team:, Kikuchi, S., Satoh,K., Nagata,T., Kawagashira,N., Doi,K., Kishimoto,N., Yazaki,J., Ishikawa,M., Yamada,H., Ooka,H., Hotta,I., Kojima,K., Namiki,T., Ohneda,E., Yahagi,W., Suzuki,K., Lii,C., Ohtsuki,K., Shihiki,T., Foundation of Advancement of International Science Genome Sequencing & Analysis Group:, Otomo,Y., Murakami,K., Iida,Y., Sugano,S., Fujimura,T., Suzuki,Y., Tsunoda,Y., Murakami,K., Ishibiki,T., Kodama,T., Masuda,H., Kobayashi,M., Xie,Q., Lu,M., Narikawa,R., Sugiyama,A., Mizuno,K., Yokomizo,S., Niikura,J., Ikeda,R., Ishibiki,J., Kawamata,M., Matsubara,K., Anakawa,T., Fukuda,S., Kawai,J., Carninci,P., Adachi,J., Alzawa,K., Arakawa,T., Fukuda,S., Hara,A., Hashidume,W., Hayatsu,N., Imchani,K., Ishibiki,J., Komno,H., Miyazaki,A., Osato,N., Ota,Y., Saito,R., Sasaki,D., Sato,K., Shibata,K., Shinagawa,A., Shiraki,T., Yoshino,M. and Hayashizaki,Y.
Collection, mapping, and annotation of over 28,000 cDNA clones from japonica rice
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ARNOUZD1 1665 bp mRNA linear PLN 24-JUL-2003 Oryza sativa (japonica cultivar-group) cDNA clone:001-004-C03, full insert sequence.
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ELL CDNA, oligo-capping.
Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Sukaryota, viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, Liliopsida, Poales; Poaceae, Ehrhartoideae, Oryzeae, Oryzea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                               /organism="Oryza sativa (japonica cultivar-group)"
            Shinagawa,A., Shiraki,T., Sogabe,Y., Tagami,M.,
agami-Takeda,Y., Tagawa,A., Takahashi,F.,
Takaku-Akahira,S., Tanaka,T., Tomaru,A., Toya,T., Waki,K.,
Yasunishi,A. and Hayashizaki,Y.
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Pred. No. 8.7e+03;
0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                      /mol_type="mRNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
/clone="J033135J16"
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94.4%;
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Matches 17; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RVIEGREGRTLEVRSERGWKASADLHALVSAAQHMEBAARSFSQNHQEGAGVVRISLM
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Pseudomonas sp. K82 catechol 2,3 gene cluster, partial sequence.
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                      Kotera,J., Fujishige,K., Imai,Y., Kawai,E., Michibata,H.,
Akatsuka,H., Yanaka,N. and Omori,K.
Genomic origin and transcriptional regulation of two variants of
cGMP-binding cGMP-specific phosphodiesterases
Eur. J. Blochem. 262 (3), 866-873 (1999)
                                                                                                                                                                                                                                                          Submitted (10-SEP-1998) Kenji Omori, Tanabe Seiyaku Co. Ltd., Discovery Research Laboratory, Basic Technology Department; 2-50 Kawagishi-2-chome, Toda, Saltama 335-8505, Japan (E-mail:k-omorigeanabe.co.jp, Tel:+81-48-433-8069, Pax:+81-48-433-8159)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="cGMP-binding cGMP-specific phosphodiesterase"
/note="alternative splicing
exon1b"
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Pseudomonas sp. K82
Bacteria, Proteobacteria, Gammaproteobacteria; Pseudomonadales;
Pseudomonadaceae; Pseudomonas.
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Submitted (12-SEP-2003) Proteome Analysis, Korea Basic Science
Institute, 52, Yeoeun-Dong, Yusung-Ku, Daejon 305-806, Korea
Location/Qualifiers
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    (bases 1 to 4898)
    Kim, S.-I., Kim, J.-Y. and Kim, E.-A.
    Proteome analysis of aromatic compounds degrading bacterium,

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Pred. No. 5.9e+03;
0; Mismatches 1;
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94.48;
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2 (bases 1 to 4898)
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Best Local Similarity 94.4
Matches 17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /translation="MKQFLNFINGDEVATAKTFENRNPATNEVVGLVHEAGQAEVDAA
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WKVGPALACGNYVIYKSBEFILFLIHK"
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                                                                                                                                                                                                                                                                                          function="electron transfer protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2700. .3644
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|FC number="1.13.11.2"
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2700. 3644
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/gene="alnG"
4245. .4808
/gene="alnG"
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/gene="alnD"
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llarity 94.4%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aoki,K.
Purification, characterization, and gene analysis of catechol
2,3-dioxygenase from the aniline-assimilating bacterium Pseudomonas
                                                                                                                                                                                                                         BCT 27-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /protein_id="BAB18929.1"
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GNEWTARYSFTLAESREGHNRVLAGWNGFVLRQSAQGLVIVLKQVNLIDSDCLGGNNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AVPVQGDEHWRCYSIISAPEDGQAISLLVRRVAGGRVSNWLCDHARGGQRLQVLPPAG
RFTLARHGQPVLLYAGGSGIAPIFALAREALLQGAPQVRLFYACRDRATAMLLAELQA
LQAGSGQRLEIRHWYDAEQGLPTQALLEAQTQGLEAADAYLCGPEAFWHSVLAALAAA
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LAVPHACRVGECASCMCRLVDGEVLRLDSSVLDEDDAAEGWLLACRTRAASAQVRLRF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (16-MAY-1997) Shuichiro Murakami, Kobe University,
Department of Biofunctional Chemistry; 1-1 Rokkodai-cho, Nada-ku,
Kobe 657, Japan (E-mail:hakko2@kobe-u.ac.jp, Tel:81-78-803-0681,
Pax:81-78-803-0680)
D86528:Submitted (08-Jul-1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murakami, S., Nakanishi, Y., Kodama, N., Takenaka, S., Shinke, R. and
                                                                                                                                                                                                                 AB004065

Breudomonas sp. genes for ORF1, ORF2, ORF3, chloroplast-type ferredoxin, catechol 2,3-dioxygenase, 2-hydroxymuconic 6-semialdehyde dehydrogenase, partial and complete cds.

AB004065 108111610562

2-hydroxymuconic 6-semialdehyde dehydrogenase; catechol 2,3-dioxygenase; chloroplast-type ferredoxin; ORF3; ORF1.
            Gaps
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            Indels
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            Mismatches
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            Conservative
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Genome Center
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Consensus quality: 34270 bases at least Q30
Consensus quality: 34280 bases at least Q30
Consensus quality: 34280 bases at least Q30
Consensus quality: 34280 bases at least Q30
Estimated insert size: 34303; sum-of-contigs estimation
Guality coverage: 18.2 in Q20 bases; agarose-fp estimation
Quality coverage: 21.22 in Q20 bases; sum-of-contigs estimation.
* NOTE: This is a 'working draft' sequence. It currently
* consists of 3 contigs. The true order of the pieces
* is not known and their order in this sequence record is
* trus of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
* be preserved.
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                                                                                                                                                                                                                                                   Submitted (21-SEP-2004) Production Genomics Facility, DOE Joint Genome Institute, 2800 Mitchell Drive B100, Walnut Creek, CA
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Pred, No. 3.9e+03;
0; Mismatches 1; IndelB 0;
                                                                                         Eukaryota; Haptophyceae; Isochrysidales; Emiliania.
1 (bases 1 to 34503)
DOE Joint Genome Institute.
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2928: contig of 2928 bp in length 3028: gap of unknown length 6325: contig of 3297 bp in length 6425: gap of unknown length 6425: gap of 28078 bp in length.
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/organism="Emiliania huxleyi"
/mol_pe="genomic DNA"
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 AC151612
AC151612.1 GI:52353786
HTG; HTGS_PHASE1; HTGS_ACTIVEFIN.
Emiliania_huxleyi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96256 bp DNA
Sequence 352 from Patent WO2004072265.
C0861719
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center clone name: JGI-ACCU_1311
                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www.jgi.doe.gov
                                                                                                                                                                                                                                                                                                             -----Genome Center
Center: Joint Genome Institute
Center Code: JGI
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DOE Joint Genome Institute.
Direct Submission
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94.4%;
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Homo sapiens
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Best Local Similarity 94.44
Matches 17; Conservative
                                                                           Emiliania huxleyi
                                                                                                                                                                                                                                                                                           94598-1698, USA
                                                                                                                                                                           Unpublished
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6426
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CQ861719
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HS117715

Human DNA sequence from clone RP5-117715 on chromosome 22q13.1

Contains a novel gene, the MSES5 gene for serum constituent protein

MSES5, the LGALG2 gene for soluble Galactose-binding Lectin 2

(Galectin 2, S-Lac Lectin 2, HL14), ESTS, an STS, GSSs and two

putative CpG islands, complete sequence.

AL022315

AL022315.1 GI:3820991

HTG; CpG island; galectin; LGALS2; MSES5.

HGMO sapiens

Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30; an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a XAC.
This sequence was generated from part of bacterial clone contigs of human chromosome 22, constructed by the Sanger Centre Chromosome 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 96256)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                           Burczynski, M., Twine, N., Dorner, A.J. and Trepicchio, W.L.
METHODS FOR MONITORING DRUG ACTIVITES IN VIVO /1
Batene: Wo 2004072265-A 352 26-Aug C2004)
Wyeth (US); Burczynski, Michael E. (US); Twine, Natalie C. (US);
Dorner, Andrew J. (US); Trepicchio, William L. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gape
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                                                                                                                                                                                                                                                                                                                                                                                                  Score 16.4; DB 6; Length 96256;
Pred. No. 3.2e+03;
0; Mismatches 1; Indels 0;
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Center code: SC
Web site: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk

    .96256
    /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"

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                                                                                                                                                                                                                                                                                                                                                                                                           91.18;
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 94.49
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Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr22 http://www.sanger.ac.uk/HGP/Chr22 for http://www.cang.rcac.uk/HGP/Chr22 http://www.chori.org/barary RPCI-5 constructed by the group of Pieter de Jong. For further details see http://www.chori.org/bacpac/home.htm VBCTOR: pCYPAC2 for http://www.chori.org/bacpac/home.htm VBCTOR: pCYPAC2 for http://www.chori.org/bacpac/home.htm Insert of clone RP5-117715.

In : 96261
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Mote="12.5 copies 11 mer GGGCAGAGAGA 38% conserved"
817. .5876
note="12 repeat: matches 3003. .3060 of consensus"
                                                                                                                                                                                                                                                                                                                           1. .23<u>T</u>
//note="AluSq repeat: matches 59. ..299 of consensus"
complement (480. .554)
//note="Mark repeat: matches 186. .262 of consensus"
1092. .1102
//note="2.2 copies 5 mer CCTGG 22% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 967. .2076
note="L2 repeat: matches 2986. .3098 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="2.1 copies 10 mer CTCCAGTGCT 35% conserved"
853. .2868
note="2.3 copies 7 mer CCACCAT 23% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2358. .2379

Complement (2493. .2617)

Anote="MIR repeat: matches 60. .212 of consensus"

Anote="2.1 copies 10 mov cmre."

Anote="2.1 copies 10 mov cmre."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1775

Mote="MIR repeat: matches 29. 137 of consensus"

1851. 1877

Mote="0.3" copies 9 mer CCACCACC 36% conserved"

1863. 1874

Mote="2.4" copies 5 mer CCAC 24% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         020. .4132
note="MIR repeat: matches 60. .169 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   copies 8 mer GGAGGAAG 36% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          294. .2310
note="2.4 copies 7 mer AGCTACC 25% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     878. .5895 notes 6 mer CCCTCA 29% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900. .2911
note="2.4 copies 5 mer AGGGC 24% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      466. .3483 note="3.6 copies 5 mer CCTCT 27% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            879. .5895
'note="3.4 copies 5 mer CCTCA 25% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       494. .3523
note="15.0 copies 2 mer CT 51% conserved"
719. .3736
note="2.2 copies 8 mer GGAGGAAG 36% conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="19.0 copies 1 mer G 29% conserved"
                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="22"
                                                                                                                                                                                                                                                                                /clone="RP5-117715"
/clone_lib="RPCI-5"
                                                                                                                                                                                                                                                                 map="q13.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                             260. .1278
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/evidence=not experimental
/product="dJ17715.1 (PUTATIVE novel protein)"
/protein id="CAB42831.1"
/db xref="G1:4808220"
/translation="DILEHDWREAQDSRQELCQKLHAVQGELQWAEELRDQYLQEMED
LRLKKHTLQROCDLYKHRMATVLAQLEEIEKERDQ"
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/note="115.6 copies 40 mer
GCCCTGGTACCTGCTGCAGGCCCTCCTGACCACCCCCAG 526% conserved"
                    7058. 7069
7050. 7069
70010-124 copies 5 mer GAGGG 24% conserved"
7140. 7157
70010-13.6 copies 5 mer GGAGA 29% conserved"
70010-13.6 copies 5 mer GGAGA 29% conserved"
7637. 7650
7637. 7650
77657. 7650
77657. 80010 mer A 28% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10413. 10522

10522 MTR repeat: matches 43. .153 of consensus"

10579. .10750 consensus"

10663. .10882

10663. .10882

11054. .11064

11054. .11064

100ct="%2.2 copies 5 mer CAGGG 22% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="MIR repeat: matches 70. .198 of consensus"
11485. .11499
Inote="2.5 copies 6 mer CCCACA 21% conserved"
11591. .11611
Inote="1.9 copies 11 mer CTGACCTGCCA 42% conserved"
11934. .11947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="AluJb repeat: matches 30. .311 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                          1235. .9333
/note="MERSA repeat: matches 63. .163 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="AluSx repeat: matches 1. .308 of consensus" 13480. .13747
                                                                                                                                                                                                                                                                                                                                                                                                                                               .171 of consensus"
                                                                                                                                                                                                                                                                                   8365. 38366
/note="4.4 copies 5 mer CCAGC 26% conserved"
/note="2.4 copies 5 mer GGGGA 24% conserved"
/note="2.4 copies 5 mer GGGGA 24% conserved"
complement (8836. 9040)
/note="MIR repeat: matches 81. .143 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement(join(<10190. .10315,10888. .>10998))
/gene="dJ117715.1"
/note="match: EGTS: Em:AA316883"
/codon_start=1
                                                                                                                                                                                                                                                       8242. .8260
/note="2.4 copies 8 mer GCACACAG 29% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "5.8 copies 6 mer CTCCTT 70% conserved" .12775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="2.3 copies 6 mer ACCCCC 28% conserved"
1967. 12590
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... copies 5 mer CAGGG 22% conserved"
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... inite="2.5 copies / --
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'note="MIR3 repeat: matches 49.
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AC103564 106117 bp DNA linear PRI 23-MAR-2002
Homo sapiens BAC clone RP11-788A1 from 2, complete sequence.
AC103564
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Submitted (28-NOV-2001) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St. Louis,
MO 63108, USA
4 (bases 1 to 106117)
Waterston, R.H.
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Submitted (23-MAR-2002) Department of Genetics, Washington
University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA
On Mar 15, 2002 this sequence version replaced gi:18677687.
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Diversity (15-FEB-2002) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St. Louis,
MO 63108, USA
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                        Length 98359;
1479 30478: contig of 10422 bp in length 3579 41700: contig of 11122 bp in length 1571 41800: gap of unknown length 1801 5225: contig of 11125 bp in length 926 53025: contig of 11125 bp in length 15255: contig of 11125 bp in length 15255: contig of 45334 bp in length 15025; contig of 45334 bp in length 15025; contig of 45334 bp in length 15025; contig of 45334 bp in length.
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2 (bases 1 to 106117)
VanBrunt, A., Kozlowicz, A. and Spalding, L.
The sequence of Homo sapiens BAC clone RP11-788A1
(hpublished (2001)
3 (bases 1 to 106117)
Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                   Score 16.4; DB 2;
Pred. No. 3.2e+03;
0; Mismatches 1;
                                                                                                                                                                               1. .98359
/organism="Xenopus tropicalis"
/mol_type="genomic DNA"
/db_xref="taxon:8364"
/clone="ISB-242D2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Toward a complete human genome sequence
Genome Res. 8 (11), 1097-1108 (1998)
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Sulston, J.E. and Waterston, R.
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5 (bases 1 to 106117)
Waterston, R.H.
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6 (bases 1 to 106117)
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94.4%;
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Best Local Similarity
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                                                                                                                                                             FEATURES
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                                                                                                                                                                                                                                                                                                                                                                                                   Selection 1 Selection 198359 bp DNA linear HTG 24-JUN-2004 Xenopus tropicalis clone ISB-242D2, WORKING DRAFT SEQUENCE, 8 UNDOCKED pieces.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HTG; HTGS_PHASEI; HTGS_DRAFT; HTGS_ACTIVEFIN.

Kenopus tropicalis (Silurana tropicalis)

Kenopus tropicalis (Silurana tropicalis)

Kenopus tropicalis (Silurana tropicalis)

Bukaryota; Metazca; Chordata; Craniata; Vertebrata; Buteleostomi;

Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;

(Bases 1 to 98359)

DOB Joint Genome Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Quality coverage: 15.53 in Q20 bases; agarose-fp estimation Quality coverage: 15.53 in Q20 bases; agarose-fp estimation Quality coverage: 15.54 in Q20 bases; agarose-fp estimation.

* NOTE: This is a 'working draft' sequence. It currently consists of 8 contigs. The true order of the pleces arbitrary. Gaps between the cortigs are represented as arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

* This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (24-JUN-2004) Production Genomics Facility, DOE Joint Genome Institute, 2800 Mitchell Drive B100, Walnut Creek, CA
                                                                                                                                                                                                                            Gaps
                                                                        copies 11 mer GGAGGAGGAGG 46% conserved"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Consensus quality: 95112 bases at least Q40
Consensus quality: 96157 bases at least Q30
Consensus quality: 9688 bases at least Q20
Estimated insert size: 104000; agarose-fp estimation
Estimated insert size: 97659; sum-of-contigs estimation
                                                                                                                                                                                                                            ö
                                                                                                                                                                                   Length 96256;
      13760. .13846
/note="2.0 copies 3 mer GAG 77% conserved"
13762. .13784
/note="2.1 copies 11 mer GGAGGAGGAG 46% con
13779. .13788
/note="2.5 copies 4 mer GGAG 20% conserved"
13860. .13880
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7: gap of unknown length

9: contig of 2743 bp in length

9: gap of unknown length

1: contig of 3244 bp in length

1: gap of unknown length

1: gap of unknown length

1: gap of unknown length
                                                                                                                                                                               Score 16.4; DB 9; Length 9
Pred. No. 3.2e+03;
0; Mismatches 1; Indels
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of 11392 bp in length
unknown length
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Center: Joint Genome Institute
Center Code: JGI
Web site: http://www.jgi.doe.gov
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Center clone name: ISB-242D2
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2 (bases 1 to 98359)
DOE Joint Genome Institute.
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5120: 0
5220: 9
8464: 0
8564: 0
19956:
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Best Local Similarity 94.4%;
Matches 17; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                        Mapping information for this clone was provided by Dr. John D. McDherson, Department of Genetics, Washington University, St. Louis MO. For additional information about the map position of this sequence, see http://genome.wustl.edu/gsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The RPCI-11 human BAC library was made from the blood of one male donor, as described by Osoegawa, K., Woon, P.Y., Zhao, B., Frengen, E. Tateno, M., Catanese, J.J. and de Jong, P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 51:1-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pieter de Jong and coworkers at http://www.chori.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTICE: This sequence may not represent the entire insert of this cone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.
                                                                                                                                                                                                           This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by sequence from more than one subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polymorphisms exist between AC103564, AC093724 and AJ239322. Data from AC093724 was used to finish AC103564. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEICHBORING SEQUENCE INFORMATION:
The clone sequenced to the right is AJ239322, 2000 bp overlap.
Actual start of this clone is at base position 1 of RPI1-788A1.
Contact: sapiens@watson.wustl.edu
               Center project name: H_NH0788A01
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/organism="Homo sapiens"
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/db_xref="taxon:9606"
/chromosome="2"
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548. .56 /rpt family="AT_rich"
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/rpt_family=ERV1=
2451. 2767
/rpt_family=ERV1=
/rpt_family="ERV1"
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2915. .3208
/rpt_family="Alu"
3209. .3921
/rpt_family="L1"
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|rpt_family="Alu"
|743. .2012
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213. .2320
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note="Bimilar to Homo sapiens EST AA453375 (NID:g2167044)
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zn55c01.s1"
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1202. .11364
note="match to EST BG221794 (NID:gl3747815)"
                                                                                                                                                                                                                                       BG221914 (NID:913747935)"
                                                                                                                                                                                                                                                                                                                     BG221911 (NID:g13747932)"
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0701. 10707
note="match to EST BG221794 (NID:g13747815)"
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15168. .15188
/note="similar to Homo sapiens EST BF062548
(MID:910821458)"
15168. .15180
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1141. 11169
rpt_family="AT_rich"
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'note="match to EST
                5421. .5535
/rpt_family="ERV1"
5536. .5900
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note="match to EST
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3193. .13473
                                                                                                                                          rpt_family="ERV1"
977. .6763
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8993. .9386
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rpt family="MaLR"
.0006. .10226
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2574. .12641
rpt_family="MaLR"
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4116. .14329
rpt_family="BRV1"
'rpt_family="ERV1"
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rpt_family="ERV1"
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3528. .13596
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/rpt_family="ERV1"
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2762. .13191
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4474. .14586
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516<u>8</u>.
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Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2 Tsukuba, Ibaraki 305-8602, Japan

2-1-2 Tsukuba, Ibaraki 305-8602, Japan

(E-mail: temasaki@niae.affer.go.jp, URL:http://rgp.dna.affrc.go.jp/,
Tel:81-298-38-7441, Fax:81-298-38-7468)

On Dec 19, 2003 this sequence version replaced gi:30984143.
Gense were predicted from the integrated results of the following:
Gense were predicted from the integrated results of the following:
GENSCAN (http://CGR-081.mit.edu/GenseArk/), GlimmerM
(http://www.softberry.com/), GeneMark.hmm
(http://rgp.dna.affrc.go.jp/RiceHMM/), SplicePredictor
(http://rgp.dna.affrc.go.jp/RiceHMM/), SplicePredictor
(http://www.tigr.org/software/glimmerm/), BIASTN and BLASTX. The
genomic sequence was searched against NGBI NonRedundant Protein
database. nr (ftp://ncbi.nlm nib.gov/blast/db) and the cDNA
sequence database at RGP or DDBJ. Protein homologies of the coding
regions were searched against NGBI NonRedundant Protein database
with BLASTP. EST represent the identified CDNA sequences using
BLASTN with the corresponding DDBJ accession no. and RGP clone ID.
Pull-length cDNAs represent the identified CDNA sequences using
BLASTN with the corresponding DDBJ accession no.
A gene with identity or significant homology to a protein is
classified based on the protein name to indicate the homology level
such as same name, 'putative-' and 'like protein. A gene without
significant homology to any protein but with full-length cDNA or
EST homology (covering almost the entire length of partial
sequence) is classified as an 'unknown' protein. A gene predicted
by two or more gene prediction programs is classified as a
hypothetical protein according to RESP standard. A gene
producted by a single gene prediction program is also classified as a
miscellaneous feature of the sequence
is probable 'hypothetical' protein and is included as a
miscellaneous feature of the sequence
is the protein and is included in the protein is classified base and the protein is classified base and the protein is classifi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oryza Bativa (japonica cultivar-group) genomic DNA, chromosome 8, hones:OSJNBa0049G15.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Bhrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                                                                Gарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (11-APR-2002) Takuji Sasaki, National Institute of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sasaki, T., Matsumoto, T. and Katayose, Y.
Oryza sativa nipponbare(GA3) genomic DNA, chromosome 8, BAC
clone:OS/MBA0049G15
Published Only in Database (2002)
2 (Bases 1 to 155303)
Sas GABAS 1 to 155303)
Direct Submission
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16598. .17168
                                                                                                                                                                                                                                                                Length 106117;
                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                Score 16.4; DB 9;
Pred. No. 3.1e+03;
                                                                                                                                                                                                                                                                                                                             Mismatches
          /rpt_family="MaLR"
16269. .16592
                                                                                                                                                                                                                                                                                                                                                                                                                                                           24281 ricciccicciccrcicciccic 24298
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                                                                                                                                                                                                                                                                                                                                                                                              1 TGCGCCGGCGCAGGGGG 18
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                                                                                                                                                                                                                                                                91.1%;
94.4%;
                                                                                                                                                                                                                                                                                                                             17; Conservative
                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
repeat_region
                                                                    repeat_region
                                                                                                                              misc_feature
                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AP005064/c
LOCUS
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VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
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JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
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15574...16397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ECKKVGLNIGNHLASEGSFPKEIKRVIAECYDSLPDHGHRMCLLSISMFPRGHRIRRK
SLLRRWLAEGLVVSQIQLNEEDAEDRFKEFIDRNITEAVDIGNELEAKHWRYHGVMLE
SISHKSISDNFITFIGNDRSTMSSNGGLLKTQQLQRKWFLVRSLTIRNSSVPNLKEY
KSIRVLDLEECNGTDORVVXMHICELLFLKYLSLRGTGVRLIPSKIKRLRYLETLDLR
ETEVEMLPLEVLKLPRLAHLFGSKLEMPQELSNDADLDLQRFFQHESELQVLAGFVME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          translation="MDHDRGRSGAEARPAWRAVRRRPAAARRRGATGWPAGTAAAGSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             translation="MDIFRVVESILTKMCSVIDQDWELGGKLKNDLICIKEEMGMMNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIEQWEGNIQGPVQQQWVHQLQDLAYDIEDFIDGHRIGPQEPNHFMPRAARMIFGTDR
RPQQVLDVKIIKERVAILQKWQQTFGSTQAVGGAGNGSPPSGGFGGCBADEQLVGIDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              akrellislisaaesqpdqonklkvisilgsngigkttlarrvydegdiveqfhrrawv
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Rylividdlkkvkvwsdiasafpennkgsrvivttsilsiattcaygswykwoclok
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DDSENLFWNEVFKGANRIRTPDLDRGSVTIIDKCDGLPLALVSAAKYLNCKRHALSGS
clone. This sequence of OSJNBa0049G15 clone has an overlap with OSJND33 B09 (DDBJ. AP003895) clone at 5' end and with OSJNBb0003H03 (DDBJ: AP005495) clone at 3' end. Detailed information on overlap and assembly quality together with annotation of this entry is
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/mol_type="genomic DNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 this category is not included in IRGSP standard"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="start and end point are not identified"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="start and end point are not identified"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="predicted by GENSCAN etc."
                                                                                                                                                  http://rgp.dna.affrc.go.jp/GenomeSeq.html.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               product="hypothetical protein"
protein_id="BAD05483.1"
db_xref="G1:40253536"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORRPVRGRRGAEGRPAGEAAARGEAADIFF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="OSJNBa0049G15 2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (18212. .21691)
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join (8750. .8820,10670.

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predicted by GENSCAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="OSJNBa0049G15.3"
                                                                                                                                                                                                                                                                                                                                 db_xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                                                             clone="OSJNBa0049G15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement (14690.
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                                                                                                                            available at
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/ LEGINS LALLON-WADDLYGGLAKTTVEGTVTWARSAMEEEEKLHKTVQRDLLVISDE
/ LEGINS LALLON-WADDLYGGLAKTTVEGTVTWARSAMEEEEKLHKTVQRDLLVISDE
FERWHESTANDAKGRYTDNVTRTLYRQVRTALDVEDOLETIVYLDSKCHWWRENILPW
CMPSAAPGKDLDAAVANIEQLKARVEAMGHRULRYRRIGSGHKPEEGQAHQAANAAM
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DCCEEQLKVEKEVLQVISVWGTGSDLEMMSIKKAYDDTETMKSFNCRAWVKMVHPFHP
IEFRAELLAQFRHWVCPEDDNYKYLLJDLWAATDDVLLEEFKQQLSQKFLVVLEEDYTTM
VDWBAVRGYLADKKNGCSCUTHYRLIALDLAATDDVLLEEFKQDLSQKFLVVVFKED
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GEKVGNVVIIITNEBSVARYTVTRNPYYDKKKFGWVDVWRABSLSWYGDIKEDDNIVSKLAA
TRSLDDVFSWLLSYFRSCPSLKNONNWNWKGLESTONGIKEDDNIVSKLAA
TRSLDDVFSWLLSYFRSCPSLKRCIIVLSTENDYNFTRRRLVRRWIAGGFFRDNIVSFE
STAREDROEGSFSKLIDLSWRYTRYNDRYNFYESIDLSLAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="OSJNBa0049G15.7"
join(34818. 35459,35601. 36205,39618. 40277,46201. 48407)
gene="OSJNBa0049G15.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tocte="supported by full-length cDNA(s): AK073893"
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ONKAFVHVIRHMSKLKKVKIWRKANAAPAKDLTEHLVVCIQRRLQGSRPLESLSIDFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KDDRAWAAGGREDVDS.LARSVSAPVYRAARLVVWRLGRWGSVAGSAAWPVRGRRRHGE
DGVTWWSHVARVGSETGAARTDGEVGGDKRGVTSVVVCARRYGDSGQGVAGISGRSCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VVGNGDRAGRRMMPAALRVLAMLRRSDQWIYDGGGVRYLWRYSVEQLAGVQLGEAKSG
WASWAAARVEKEEGKARGRGREKKGGTTSFPSRLSPTEGDGKGDGWAGWDWRKRRGNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        translation="MGQGARGEDDRGVSGWRGARQGQHGRRTGWGGRVVLVATGGEDG"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="contains full-length cDNA(s): AK073893"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="predicted by GeneMark.hmm etc."
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                                                                                                                                      AHKNRPNVRROPO"
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RVLDLEDVSSGVTNVDVEKMYKLLPRLKFLSILRRCKQITRLPDSLGDLKQLQTLDIRH TSVTKLPRSITKLEKLQYYRAGTAKHQASBABARDSVARAPAMMSRECTATPGSRFS TGALGLHCRHGSHGSVKVPRGIGKLSSLHTLGVVNIQACGEOGILEDLKNLTQLHKLG VSGINRKNSEKLFSVILRLAHLESLSLKMQANQDNEAAGCMADISSPLEKLQSLKLYG

LVDRLPSWIMOMCLOLPRLEKLDLOMKTLPQOELDFILTLKYLRSLRLRLAEFODGEL RFGWTIAQRSTSWIIDILEIVCNSSLQAVKFGSKIHVKILKIRCYSVSSSLQFSGLES METLKEVWLSGSYELGFKQQLETELKGNENEPILELEKPSSST"

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gene

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      91.1%; Score 16.4; DB 8; Length 155303;

      Best Local Similarity 94.4%; Pred. No. 2.9e+03;

      Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

      Qy 1 TGGGCGGGGAGGGGG 18

      Db 65833 TGGCCGGCAGGGAGG 65816

      Search completed: April 29, 2005, 08:03:50

      Job time: 716.341 secs
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Abi99675 Mouse isc Ade07415 Novel cod Ada4729 Prokaryot Add49064 Human NOV Adm47612 Polymucle Ads5788 Bacterial Ads48763 NOV19 cod Add69886 Rice gene Add29815 Human tum Aaa79707 Eucalyptu

Add15216 Human ser Adr25271 Breast ca Adg19921 Human sof Adj80233 Novel hum Abv21138 Human pro Adg24014 Human pro Abv25833 Human pro Abv25544 Human pro Abv288931 Human pro Abv288931 Human pro Abv24150 Human pro Abv24160 Human pro Abv24160 Human pro

Scoring table:

Searched:

Minimum DB Maximum DB

Database :

Title: Perfect score:

Sequence:

OM nucleic

Run on:

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CpG oligodeoxynucleotide; dendritic cell; tumour; immunotherapy; vaccine; cytostatic; immunostimulant; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Generating mature dendritic cells for tumor immunotherapy or as vaccines for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag= b
/note= "N is any base (especially G) or no base"
                                                                                                                                                                                                                                                                                                                                                                                             CpG oligodeoxynucleotide used for dendritic cell maturation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  any base (especially G)
                                                                                                                                                                                                                                                                               ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                     ADM47612
ADS57886
ADH48763
                                                                                                             ADR25271
ADQ19921
ADJ80233
ABV21138
ADQ24014
ABV25833
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AAA79707
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ABV24150
                                                                     ADA69886
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                                                                                                                                                                                                        ABV28883
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                 ACC48302 standard; DNA; 20 BP.
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"N is
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Synthetic
                                                                                                                                                                                                                                                                                                                                                     ACC48302;
                                                                                                                                                                                                                                                                                                            RESULT 1
ACC48302
ACM80806 Breast ca
Ad185306 DNA up-re
Ad185307 DNA up-re
Ach71251 Human gen
Acn86723 Breast ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Adj11795 Rice cDNA
Adj11463 Rice DNA
ACN89965 Breast ca
Adt43197 Bacterial
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Abd09335 Pseudomon
Abd09195 Pseudomon
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Aal17683 Human bre
Aac41286 Zea mays
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Adn96871 Immunosti
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Eucalyptu
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Ada71180 Rice gene
Aac56198 Eucalyptu
                                                                 April 29, 2005, 04:24:29; Search time 183:527 Seconds (without alignments) 580.598 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                       8780412
       GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                 4390206 segs, 2959870667 residues
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                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                nucleic search, using sw model
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ADL85307
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ADT43197
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Gapop 10.0 , Gapext 1.0
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Match 1
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or no base"

Score

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Result

16.

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Disclosure; Page 26; 69pp; English

Claim 21; SEQ ID NO 5; 64pp; English.

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tuberculostatic; anti-inflammatory; hepatocropic; cytostatic; tuberculostatic; anti-inflammatory; hepatocropic; cytostatic; tuberculogical; bacterial growth inhibitor; immunostimulator; immunostimulator; immunostimulator; immunostimulator; infection; mentivirus infection; human immunodeficiency virus infection; notocozoan infection; fungal infection; viral infection; prion disease; nucleoplasm; salmonellosis; sphilis; neurosyphilis; tuberculosis; almonellosis; sphilis; neurosyphilis; tuberculosis; coccidioidomycosis; cryptococcal meningitis; hepatitis B; histoplasmosis; cryptosporidiosis; cryptosporidiosis; promocystis carinii pneumonia; toxoplasmosis; nucrosporidiosis; pneumocystis carinii pneumonia; toxoplasmosis; nucrosporidiosis; pneumocystis carinii pneumonia; toxoplasmosis; oytomegalovirus; hepatitis; hepatitis; herpes simplex; herpes zoster; human papillomavirus; molluscum contagiosum; oral hairy leukoplakia; systemic non-Hodgkin's lymphoma; primary central nervous system lymphoma; why genital herpes; HZV; shingles; genital wart; cervical cancer;
           The present sequence is that of a D type CpG oligodeoxynucleotide that is an example of claimed D type oligodeoxynucleotides (see ACC48294) of the invention. Mature dendritic cells are obtained by contacting a dendritic cell precursor, such as amonoxyte, with such an oligodeoxynucleotide. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for tumour immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature dendritic cells may also be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Increasing an immune response to an opportunistic infection e.g. bacterial infections in an immunocompromised subject involves administering immunostimulatory D oligodeoxynucleotide or an immunostimulatory K oligodeoxynucleotide.
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                                                                                                                                                                                                                                                                                                                                   100.0%; Score 18; DB 8; Length 20; 100.0%; Pred. No. 3.2e+02;
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                                                                                                                                                                                                                                                                                         Sequence 20 BP; 1 A; 5 C; 11 G; 1 T; 0 U; 2 Other;
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                                                                                                                                                                                                                                              produce activated T lymphocytes
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Best Local Similarity 100.
Matches 18; Conservative
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The invention assertions a method of intreasury an immune response to an opportunistic infection in an immunocompromised subject involves administering an immunostimulatory D oligodeoxynuclectide or an immunostimulatory K oligodeoxynuclectide, where an antigenic epitope of a immunostimulatory K oligodeoxynuclectide, where an antigenic epitope of a increasing an immune response to an opportunistic infection e.g. infection with a lentivirus such as human immunodeficiency virus (including HIV-1, HIV-2) e.g. AIDS; infections; protozoan infections; cinfections; fungal infections; viral infections; protozoan infections; prion disease; and nucleoplasm in an immunocompromised subject or a subject infected with a lentivirus. The bacterial infections include subject or a cupiomatosis, sphilis and neurosyphilis, tuberculosis and bacillary condidomycosis, the fungal infections include cryptosporidiosis, candidiasis, condidiomycosis, cryptococcal meningitis, hepatitis B, and histoplasmosis, the protozoal infections include cryptosporidiosis, cryptosporidiosis, neumocystis cartini pneumonia and tisoplasmosis, viral infections include cytomegalovirus, hepatitis, contegiosum, oral hairy leukoplakia and progressive multifect contegiosum, oral hairy leukoplakia and progressive multifect includes HSV, genital herpes simplex includes HSV, genital herpes simplex includes HSV, genital herpes where immunost in an extra cand cervical cancer. The method stimulates immune responses to any correspondent and immunocompromised subjects. This sequence recorrection in immunocompromised subjects. This sequence readers and extra an immunocation in immunocompromised subjects. This sequence
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                                                                                                                             invention describes a method of increasing an immune response to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           represents an immunostimulatory CpG oligonuclectide sequence that stimulate the release of cytokines from cells of the immune system and can be used to increase immune response in the method of the invention.
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03-APR-2003; 2003US-0459782P.
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(BURC/) BURCZYNSKI M.
(TWIN/) TWINE N.
(DORN/) DORNER A J.
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Bacterial infection; gene; ds; Pseudomonas aeruginosa infection;
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                                                                  Disclosure; SEQ ID NO 352; 136pp; English.
              Dorner AJ,
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                                                                                                                                                                                                                                    1 TGCGCCGGCGCAGGGGG
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                                                                                                                                                                                                                       Conservative
             Twine N,
(TREP/) TREPICCHIO W L.
                                                                                                                                                                                                                                                                                                                                                            Pseudomonas aeruginosa.
                          WPI; 2004-642301/62.
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Best Local Similarity
Matches 17; Conserv
             Burczynski M,
                                                                                                                                                                                                                                                                                                                                               antibacterial
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The invention relates to Pseudomonas aeruginosa polypeptides and the polynucleotides encoding them. The sequences are useful in diagnosis and therapy of pathological conditions tar targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from a bacterial infection, for evaluating a compound, such as a polypeptide, of the ability to bind a P. aeruginosa uncleic acid, as components of effective antibacterial targets, as targets for antibacterial drugs, including anti-P. aeruginosa derived peptides or polypeptides, as target components for diagnosis and/or treatment of P. aeruginosa-caused infection, and in detection of P. aeruginosa sequences or other sequences of preducing and in detection of P. aeruginosa sequences or other sequences of preducing and in detection of P. aeruginosa sequence of P. ABD1967 represent P. aeruginosa polymucleotides of the invention. Note: The sequence data for this patent did not form part of the printed prediction but, was obtained in electronic format from USPTO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 963 BP; 140 A; 330 C; 334 G; 159 T; 0 U; 0 Other;
                              Disclosure; SEQ ID NO 7939; 455pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a method of monitoring drug activities in vivo by comparing an expression profile of at least one gene in a peripheral blood sample of a patient to a reference expression profile of the at least one gene, where the at least one gene is differentially expressed in peripheral blood mononuclear cells (PBMCs) of patients who have a nonblood disease and are subjected to a drug therapy as compared to PBMCs isolated from the patient before the drug therapy, and where the patient has the non-blood disease and is being treated by the drug therapy. The method, kit, and nucleic acid array are useful for monitoring drug cutivities in vivo. The drug is especially CCI-779, an ester analogue of the immunosuppressant rapamycin which is a potent inhibitor of the mammalian target of rapamycin (mTOR). This sequence represents a gene mammalian target of rapamycin (mTOR). This sequence represents a gene conform part of the printed specification but was obtained in electronic format from WIPO at ftp.wipo.int/pub/published_pct_sequences/).
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                                                                                                                                                                                                       Monitoring drug activities in vivo comprises comparing an expression profile of a gene in a peripheral blood sample of a patient before and after drug therapy.
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Pred. No. 5.7e+02;
0; Mismatches 1; Indels 0;
                                                                   Trepicchio WL;
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Novel isolated nucleic acid encoding Pseudomonas aeruginosa polypeptide, useful as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from bacterial infection.
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                                      Gape
                                                                                                                                                                                                                                                                                 Bacterial infection; gene; ds; Pseudomonas aeruginosa infection;
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 Score 16; DB 11; Length 963;
Pred. No. 1.4e+03;
                                    0; Indels
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98.94; Scc...
100.04; Pred. No. ...
                                                                                                                                                                                                                                                       Pseudomonas aeruginosa polynucleotide #7799.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Deloughery C,
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98US-0094190P.
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                                                                                                                                                                    ABD09195 standard; DNA; 1050
                                                                  3 CGCCGGCGCAGGGGG 18
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                                                                                                                                                                                                                          (first entry)
                    Local Similarity 100.
                                                                                                                                                                                                                                                                                                                            Pseudomonas aeruginosa.
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P-PSDB; ABO75624.
                                                                                                                                                                                                                                                                                               antibacterial
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Novel isolated nucleic acid encoding Pseudomonas aeruginosa polypeptide, useful as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from bacterial infection.

WPI; 2003-615309/58.

P-PSDB; ABO75764.

Length 374;

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Query Match
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for the ability to bind a P. aeruginosa nucleic acid, as components of effective antibacterial targets, as targets for antibacterial drugs, including anti-P. aeruginosa drugs, as templates for recombinant production of P. aeruginosa-derived peptides or polypeptides, as target components for diagnosis and/or treatment of P. aeruginosa-caused infection, and in detection of P. aeruginosa sequences or other sequences of Pseudomonas species using biochip technology. Sequences ABD1397-Bab17967 represent P. aeruginosa polynucleotides of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format from USPTO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to human breast cancer expressed polynucleotides (AALO744-AAL57789) and methods of assessing whether a patient is affilted with breast cancer by examining the correlation between the expression of certain markers and the cancerous state of breast cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The polynucleotides and encoded polypeptides are potential markers for detecting, diagnosing, monitoring, characterising treating and potentially preventing breast cancer. The polynucleotides and encoded polypeptides are also useful for isolating compounds with cytostatic activity
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                                                                                                                                                                          Score 16; DB 11; Length 1050; Pred. No. 1.4e+03;
                                                                                                                                                 Sequence 1050 BP; 162 A; 354 C; 348 G; 186 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                                                                                                                                               Human; breast cancer; cell marker; cytostatic; ss.
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ID AAL10608 standard; cDNA; 374 BP.
                                                                                                                         seqdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                           1010 CGCCGCCCAGGGGG 1025
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; 2000US-0189167P.
; 2000US-0192099P.
; 2000US-0193480P.
; 2000US-0205230P.
                                                                                                                                                                                                                           3 CGCCGGCGCAGGGGG 18
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                                                                                                                                                                          88.9%;
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                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                    Best Local Similarity 100.
Matches 16; Conservative
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Sequence 374 BP; 69 A; 109 C; 122 G; 68 T; 0 U; 6 Other;

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                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Human breast cancer expressed polynucleotide 10140.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; breast cancer; cell marker; cytostatic; ss.
85.6%; Score 15.4; DB 4; 94.1%; Pred. No. 2.7e+03; ive 0; Mismatches 1;
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                                                                                                                                                                                                                                                          AAL17683/c
ID AAL17683 standard; cDNA; 450 BP.
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                                                                                                                                                      304 GCGCCGGCGCATGGGGG 288
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                                                                                                      2 GCGCCGGCGCAGGGGGG 18
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29-MAR-2000; 2000US-0193480P.
15-MAY-2000; 2000US-0205230P.
09-UUN-2000; 2000US-0211315P.
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2000US-0189167P.
Query Match 85.6%;
Best Local Similarity 94.1%;
Matches 16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
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14-MAR-2000;
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990S-0139750P.
990S-0139763P.
990S-0139893P.
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18 - JUN - 1999;
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25-AUG-1999;
26-AUG-1999;
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11-AUG-1999;
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 Hybridisation assay; genetic mapping; gene expression control; protein identification; signal transduction pathway; metabolic; pathway; promoter; termination sequence; corn; ss.
                           Zea mays DNA fragment SEQ ID NO: 31332
                                                                                                                                                           99US - 0121825P.
99US - 0123180P.
99US - 0125788P.
99US - 0125788P.
99US - 01264P.
99US - 0127462P.
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99US-0132486P-
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9905-013632P.
9905-0136782P.
9905-0137528P.
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9905-0137502P.
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99US-0130891P.
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99US-0132407P.
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99US-0139459P.
99US-0139460P.
99US-0139461P.
99US-0139462P.
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99US-0139119P
       17-OCT-2000 (first entry)
                                                                                  Zea mays subsp. mays.
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05-MAR-1999;
23-MAR-1999;
25-MAR-1999;
26-MAR-1999;
20-APR-1999;
06-APR-1999;
16-APR-1999;
16-APR-1999;
23-APR-1999;
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23-APR-1999;
23-APR-1999;
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04-MAY-1999;
05-MAY-1999;
06-MAY-1999;
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18-JUN-1999;
18-JUN-1999;
18-JUN-1999;
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11-MAY-1999
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14-MAY-1999
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The invention relates to an isolated polypeptide (I) associated with breast cancer which is encoded by a nucleic acid molecule comprising a nucleotide sequence (S1). Further disclosed is an antibody that binds to the polypeptide of the invention. The activity of the polypeptide of the invention. The activity of the polypeptide of the invention may be described as cytostatic. The antibody is useful for detecting the presence of (I) in a sample. Nucleic acid molecules of the invention are useful in the detection of breast tumours. (I) is useful as a marker for breast cancer and in breast cancer therapy. Sequences given in records ACNY8851-ACN2934 represent nucleic acid markers associated with breast cancer. Note: The sequence listing does not form part of the specification but may be obtained in electronic format from the USPTO web site at seqdata.uspto.gov/sequence.html?DocID=20030099974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene potential; multi-lineage; cell commitment; haematopoietic stem cell; HSC; multipotent progenitor; MPP; common lymphoid progenitor; CLP; common myeloid progenitor; CMP; bone marrow stem cell; mouse; murine; ds.
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                                                                                                                                                                                                                                                                                                                                                       Novel isolated polypeptide associated with breast cancer, useful for detecting presence of polypeptide in sample, as a marker for breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA up-regulated in murine common lymphoid myeloid cells SeqID 1699.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 513 BP; 93 A; 152 C; 163 G; 92 T; 0 U; 13 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 1956; 36pp; English.
                                                                                                                                                                                                                                                                 Wang Y, Steinmann K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (STOW-) STOWERS INST MEDICAL RES
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                                                                                                                                18-JUL-2002; 2002US-00198846.
                                                                                                                                                                           18-JUL-2001; 2001US-0306220P
                                                                                                                                                                                                                      (MILL-) MILLENNIUM PHARM INC
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                                        US2003099974-A1
Homo sapiens.
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                                                                                     29-MAY-2003
                                                                                                                                                                                                                                                                   Lillie J,
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                                                                                     9905-0151438P.
9905-0151330P.
9905-0153070P.
9905-0153070P.
9905-0154039P.
9905-0154039P.
9905-0154039P.
9905-0155486P.
9905-015713P.
9905-015713P.
9905-015713P.
9905-015923P.
9905-016098P.
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                     99US-0151066P.
99US-0151080P.
99US-0151303P.
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hes 16; Conservative
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14-0CT-1
16-0CT-1
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gene potential; multi-lineage; cell commitment; haematopoietic stem cell; HSC; multipotent progenitor; MPP; common lymphoid progenitor; CLP; common myeloid progenitor; CMP; bone marrow stem cell; mouse; murine; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Classifying an unknown multi-lineage affiliated gene comprises isolating expressed nucleic acid sequences from the discrete cell sub-populations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 9; SEQ ID NO 1700; 123pp; English.
                                                             Claim 9; SEQ ID NO 1699; 123pp; English.
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94.1%;
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Best Local Similarity 94.1
Matches 16; Conservative
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unknown multi-lineage affiliated gene by collecting hybridisation data to develop a gene expression map, in order to determine the discrete subpopulation where it is expressed. The present invention describes methods for predicting the lineage commitment of genes associated with the self-renewing haematopoietic (blood) stem cells (HSCs), as well as the nonself renewing multipotent progenitors (MPBs), common lymphoid progenitors (CLPs) and common myeloid progenitors (GMPs), which are collectively referred to as bone marrow stem cells populations. As such, these methods can be used to identify associated multi-lineage affiliated genes and hence the underlying molecular mechanisms in physiological haematopoietic development. This polynucleotide sequence is DNA associated with a murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; probe; 88; gene expression; single exon probe; microarray; alternative splicing event; genomic alteration.
                                                                                                                                                                                                                                                                                                                                                  / Match 85.6%; Score 15.4; DB 12; Length 564; Local Similarity 94.1%; Pred. No. 2.6e+03; les 16; Conservative 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                         Sequence 564 BP; 89 A; 173 C; 150 G; 144 T; 0 U; 8 Other;
                                                                                                                                                                                                                                                           CMP sub population of cells of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human genome derived single exon probe #4446.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125 TGCCCCGGCGCAGGGG 109
                                                                                                                                                                                                                                                                                                                                                                                                                                               1 TGCGCCGGCGCAGGGGG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-APR-2002; 2002US-00029386.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACH71251 standard; DNA; 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003194704-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACH71251;
                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACH71251/c
                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
       888888888888888888888
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                            This invention relates to a novel method for predicting gene potential by associating nucleic acid sequences of unknown function with particular sub-population profiles. Specifically, it refers to classifying an unknown multi-lineage affiliated gene by collecting hybridisation data to develop a gene expression map, in order to determine the discrete sub-population where it is expressed. The present invention describes methods for predicting the lineage commitment of genes associated with the self-renewing haematopoietic (blood) stem cells (HSCS), as well as the nonself renewing multipotent progenitors (MPBS), which are collectively referred to as bone marrow stem cells populations. As such, these methods can be used to identify associated multi-lineage affiliated genes and hence the underlying molecular mechanisms in physiological haematopoietic development. This polynucleotide sequence is DNA associated with a murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                   Classifying an unknown multi-lineage affiliated gene comprises isolating expressed nucleic acid sequences from the discrete cell sub-populations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA up-regulated in murine common lymphoid myeloid cells SegID 1700.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 15.4; DB 12; Length 564;
Pred. No. 2.66+03;
0; Mismatches 1; Indels 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 564 BP; 89 A; 173 C; 150 G; 144 T; 0 U; 8 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CMP sub population of cells of the invention
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Gaps

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The invention relates to a nucleic acid probe for measuring human gene expression, comprising any of the 27,400 fully defined nucleotide sequences in the specification, or their complements or fragments, and encoding at least 8 amino acids of any of the 6888 amino acids sequences fully defined in the specification. The probe is a single exon probe that hybridises under high stringency conditions to a nucleic acid molecule expressed in human cells or tissues. Also included are a spatially-addressable set of single exon nucleic acid probes for measuring human gene expression (comprising a plurality of single exon nucleic acid probes cited above, where each of the plurality of probes is separately and addressably isolatable or amplifiable from the plurality), a single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human genome-derived single exon nucleic acid probes useful for humagene expression analysis, for identifying or characterizing alternative splicing events, for assessing genomic alterations or as tools for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 15; SEQ ID NO 4446; 80pp; English.
                                                                                                                                                                                                                                                                                                             Penn SG, Rank DR, Hanzel DK;
03-APR-2002; 2002US-00029386.
                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2004-119264/12.
                                                                                         (PENN/) PENN S G.
(RANK/) RANK D R.
(HANZ/) HANZEL D K.
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cc exon microarray for measuring human gene expression, a method of measuring human gene expression, a vector comprising the single exon probe cited above, an ORF-encoded peptide comprising at least 8 contiguous amino acids of any of the above-mentioned amino acid acids contiguous amino acids of selling and/or licensing single exon probes or microarrays to sequences (optionally with conservative amino acid substitutions), an isolated antibody that binds specifically to a peptide cited above. Cc acid contains a database having a plurality of records human gene expression data by subscription, and a computer-readable storage medium which contains a database having a plurality of records cleach record including data on the expression of a single exon probe cc expression analysis. The probes may be used as tools for surveying tissues to detect the presence of expressed messages that contain their specific exon, or in constructing genome-derived single exon microarrays. In addition, the probes are used in identifying and characterising containing the spicing events, in detecting and characterising gross alterations in the genomic locus that includes their exon, in assessing smaller genomic alterations, in priming the synthesis of nucleic acids, cor in expressing the ORP-encoded peptide. The sequence is a human construct of the printed specification, but was obtained consider acceptance of single exon probe of the invention. Note: The sequence data for this encoded acceptance of the synthesis of nucleic acids, considers are the directly from USFO at the sequence of supersections and acceptance of supersections and acceptance of supersections are supersections and acceptance of supersections and acceptance of supersections and acceptance of the printed specification, but was obtained and acceptance of supersections and supe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel isolated polypeptide associated with breast cancer, useful for detecting presence of polypeptide in sample, as a marker for breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cancer; breast; tumour; cytostatic; marker; detection; therapy; ds.
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0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 597 BP; 81 A; 242 C; 154 G; 120 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   segdata.uspto.gov/sequence.html?DocID=20030194704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; SEQ ID NO 7873; 36pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Breast cancer related marker, seq id 7873.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lillie J, Xu Y, Wang Y, Steinmann K;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 GCGCCGGCGCAGGGGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUL-2002; 2002US-00198846.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUL-2001; 2001US-0306220P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACN86723 standard; DNA; 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2003099974-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
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the polypeptide of the invention. The activity of the polypeptide of the invention may be described as cytostatic. The antibody is useful for detecting the presence of (1) in a sample. Nucleic acid molecules of the invention are useful in the detection of breast tumours. (1) is useful as marker for breast cancer and in breast cancer therapy. Sequences given in records ACM78851-ACM293914 represent nucleic acid markers associated with breast cancer. Note: The sequence listing does not form part of the specification but may be obtained in electronic format from the USPTO web site at seqdata.uspto.gov/sequence.html?DocID=20030099974
                                                                                                                                                                                                                                                                                                                                                                                                         Rice cDNA modulated by post-transcriptional gene silencing SeqID 431.
                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polynucleotide, useful for modulating gene expression within a
                                                                                                                                                                                                                                                                                                                                                                                                                                  rice; gene; ss; post-transcriptional gene silencing; PTGS; plant; trans-activation; cereal; plant-viral interaction.
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                                                                                                                                                                     Score 15.4; DB 11; Length 664; Pred. No. 2.6e+03;
                                                                                                                                           Sequence 664 BP; 134 A; 179 C; 204 G; 118 T; 0 U; 29 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             s SP, Cooper B, Glazebro
Moughamer T, Provart N,
                                                                                                                                                                                                    Indels
                                                                                                                                                                                                    0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              posttranscriptional gene silencing.
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Kreps J, N
                                                                                                                                                                                                                                                                                                                              ADJ11795 standard; DNA; 681 BP.
                                                                                                                                                                                                                               2 GCGCCGCCGCAGGGGGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-SEP-2001; 2001US-0325277P.
27-MAR-2002; 2002US-0368327P.
04-APR-2002; 2002US-0370620P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-SEP-2002; 2002US-00259165
                                                                                                                                                                          85.6%;
94.1%;
                                                                                                                                                                                                                                                   295 GCGCCGGCGCATGGGGG
                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                       Query Match
Best Local Similarity 94.1
Matches 16; Conservative
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Katagiri F,
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GOFF S A.
KATAGIRI F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-829655/77.
P-PSDB; ADJ11796.
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COOPER B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROVART N. RICKE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZHU T.
WANG X.
CHANG H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KREPS J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003135888-A1.
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Goff SA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryza sp.
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(PROV/)
(RICK/)
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(CHAN/)
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                                                                                                                                                                                                                                                                                                      RESULT
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         Increased RNA degradation. The present invention describes clusters of polynocleotides from cereals, in particular rice, as well as homologues and the polypoptide sequences defrived thereof, where gene expression is altered in response to PTGS. As such, the elucidation of gene silencing mechanisms can lead to more efficiently expressed transgenes, and can also improve the understanding of plant-viral interactions and targeting the suppression of specific plant genes. This polynucleotide sequence is a rice cDNA sequence where expression is modulated by gene silencing, or a present in an exemplification of the invention. NOTE: This sequence does not appear in the printed specification but has been obtained in electronic format from the US patent office at ftp.seqdata.uspto.gov/sequence.html?DocID=20030135888.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New polynucleotide, useful for modulating gene expression within a cell
                                                                                                                                                                                                                                                                                        Gaps
plants via PTGS and the trans-activation of homologous genes due to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rice DNA modulated by post-transcriptional gene silencing SegID 99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rice; gene; de; post-transcriptional gene silencing; PTGS; plant; trans-activation; cereal; plant-viral interaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chang H, Briggs SP, Cooper B, Glazebrook J;
ri F, Kreps J, Moughamer T, Provart N, Ricke
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                                                                                                                                                                                                                                                  Query Match 85.6%; Score 15.4; DB 11; Length 681; Best Local Similarity 94.1%; Pred. No. 2.5e+03; Matches 16; Conservative 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                        Sequence 681 BP; 80 A; 246 C; 253 G; 102 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            by posttranscriptional gene silencing.
                                                                                                                                                                                                                                                                                                                                          637 TGCGCCGCACAGGGGG 621
                                                                                                                                                                                                                                                                                                                                                                                                                      .463/c
ADJ11463 Btandard; DNA; 684 BP
                                                                                                                                                                                                                                                                                                                    1 TGCGCCGGCGCAGGGGG 17
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27-MAR-2002; 2002US-0368327P.
04-APR-2002; 2002US-0370620P.
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COOPER B.
GLAZEBROOK J.
GOFF S A.
KATAGIRI F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhu T, Wang X, Chang
Goff SA, Katagiri F,
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MOUGHAMER T.
PROVART N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-829655/77.
P-PSDB; ADJ11464.
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CHANG H.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZHU T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUL-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oryza sp.
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(CHAN/)
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(GOFF/)
                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
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8888888888888888888888888888888888
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Claim 1; SEQ ID NO 99; 79pp; English.

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This invention relates to a novel method for identifying isolated proposed transcriptional gene silencing polynucleotides that are modulated by post-transcriptional gene silencing (PTGS). Specifically, it refers to the regulation of gene expression in plants via PTGS and the trans-activation of homologous genes due to increased RNA degradation. The present invention describes clusters of polynucleotides from cereals, in particular rice, as well as homologues and the polypeptide sequences derived thereof, where gene expression is altered in response to PTGS. As such, the elucidation of gene silencing mechanisms can lead to more efficiently expressed transgenes, and can also improve the understanding of plant-viral interactions and targeting the suppression of specific plant genes. This polynucleotide sequence is a rice DNA sequence where expression is modulated by gene silencing, given in an exemplification of the invention. NOTE: This sequence does not appear in the printed specification but has been obtained in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gape
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 684 BP; 81 A; 246 C; 254 G; 103 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                       ftp.seqdata.uspto.gov/sequence.html?DocID=20030135888.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       637 TGCGCCGGCACAGGGG 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 TGCGCCGGCGCAGGGGG 17
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Best Local Similarity 94.19
Warrhes 16; Conservative
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Search completed: April 29, 2005, 06:26:04 Job time : 186.527 Becs

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April 29, 2005, 05:15:22 ; Search time 1687.62 Seconds (without alignments) 405.990 Million cell updates/sec
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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                                                                         - nucleic search, using sw model
                                                                                                                                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
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18
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Perfect score:
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                                                                       OM nucleic
                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                            Run on:
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9b est1: *
9b_est2: *
9b_est2: *
9b_est4: *
9b_est6: *
9b_est6: *
9b_9s81: * EST: * Database

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	AQ834558 HS 5262 B	BI824249 603040633		BUS40484 AGENCOURT	CN248554 EST014461	AL166022 Tetraodon	AL183410 Tetraodon	BM441533 EBma05 SQ	CA003765 HS15H23r	CA389497 cs09h05.y		CL809531 OR CBa002	CV060996 BNEL63g12	CL726375 OR BBa005	CL720522 OR_BBa004	CV058883 BNEL42a7	CV062273 BNEL78c1	CA006705 HU05H16r	CV054681 BNEL112b3	CV058059 BNEL33h4	CV062564 BNEL80d9	CV063117 BNEL8698	CA757679 OE06F11-T	CG852075 ZMMBBb034
SUMMARIES	a ID	3 AQ834558	BI824249	5 BQ722659	5 BU540484	7 CN248554	9 CNS01T3H	9 CNS026IH	# BM441533	5 CA003765	5 CA389497	7 CK124280	9 CL809531	7 CV060996	9 CL726375	9 CL720522	7 CV058883	7 CV062273	5 CA006705	7 CV054681	7 CV058059	7 CV062564	7 CV063117	S CA757679	9 CG852075
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^	FARP 0062 an) 133 78. C.	87. was 1. fry (htty (htt fry one sashi)
589 602 602 610 6119 6119 7911 7911 7911 840 9113 9113 9114 9114 915 916 917	A BOOK TO A RPCI-1: 10 GI:5800620 1 GI:5800620 ens (human) ens I Metazoa; Chord Enteraca; Priman 1 to 493; 2 Shaker, R., Furraged connector the human genome the human	(206) 616-3897 : jwallace@u.was is are derived for ry availability, ry availability, c Resources (htt com Resear h Gene (/www.htsc.washi //www.htsc.washi :: 838 row: N c rimer: T7 :: BAC ends quality sequence Location/Qua 1.493 //mol ty9e="Moleculus" //moleculus /
	ALI AQ834558 HS 5262 B1 G02 T7A RPCI-11 G0034558.1 G1:5800620 GSS. AQ834558.1 G1:5800620 GSS. HOMO sapiens (human) HOMO Sapiens (human) ENTERING (HUMAN) MANAILS (G., Wallace, J.C. HOOG, L. Sequence-tagged connectors: Sequence-tagged connectors: Sequencing University of Washington 401 Queen Anne Avenue North	iii (206) mill: jwal m
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ORIGIN

RESULT 2 BI824249/c DEFINITION

ઠે 셤 ORGANISM

ACCESSION VERSION KEYWORDS SOURCE REFERENCE AUTHORS TITLE JOURNAL

COMMENT

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/aclone library.
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                      BQ722659 1015 bp mRNA linear EST 16-JUL-2002 AGENCOURT 8219609 Lupski sympathetic_trunk Homo sapiens cDNA clone IMAGE:6188410 5', mRNA sequence.
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;

Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 1015)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
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NIH-WGC http://mgc.nci.nih.gov/.
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Email: cgapber-centain.inh.gov
Tissue Procurement: Dr. James R. Lupski
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
production.procections.com
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High quality sequence stop: 262.
Location/Qualifiers
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JOURNAL
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oligo-dT primed and directionally cloned (EccRV site_is
destroyed upon cloning). Average insert size 1:8 kb,
insert size range 1-3 kb. Library is normalized and
enriched for full-length clones and was constructed by C.
Gruber (Invitrogen). Research Genetics tracking code
021. Note: this is a NIH_MGC Library."
Male blood DNA was isolated from one randomly chosen donor and partially digested with a combination of EcoRI and ECORI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at ECORI sites.
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Email: cgapbs-r@mail.nih.gov
Tisaue Procurement: Life Technologies, Inc.
Tisaue Procurement: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
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http://image.llnl.gov
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High quality sequence start: 2
High quality sequence stop: 568.
Liccation/Qualifiers
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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                                                                                                                                                                                                                       100.0%; Score 18; DB 8; Length 493; 100.0%; Pred. No. 1.1e+03;
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100.0%; Pred. No. 2.9e+03;
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                                                                                                                                                                                                                                                                                                                                                                   1 TGCGCCGGCGCAGGGGG 18
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FEATURES

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ORIGIN

RESULT 3

Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                              CNS01T3H 630 bp DNA linear GSS 01-SEP-2000 Tetraodon nigroviridis genome survey sequence T7 end of clone 194E11 of library G from Tetraodon nigroviridis, genomic survey
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This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
Location/Qualifiers
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Submitted (12-APR-2000) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr
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Tetraodon nigroviridis
Tetraodon nigroviridis
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Buteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C., Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F., Sautin, W., Bernot, A. and Weissenbach, J. Characterization and repeat analysis of the compact genome of the freshwater pufferfish Tetracdon nigroviridis
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/organism="Tetraodon nigroviridis"
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/db_xref="leftarn"
/clone="194#211"
/clone_lib="G"
/note="Genoscope sequence ID : C0AG194AC06LP1~end : T7"
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                                                                                                                                                                                  94.4%; Score 17; DB 7; Le
100.0%; Pred. No. 2.7e+03;
cive 0; Mismatches 0;
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Nat. Genet. 25 (2), 235-238 (2000)
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AL166022.1 GI:7803760
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Best Local Similarity 94.1
Matches 16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                /close="IMAGE:6571942"
/tissue type="large cell carcinoma"
/tissue type="large cell carcinoma"
/lab_host="Unit properties"
/lab_host="Unit properties"
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/clone lib="WIH MGG 18"
/note="Organ: lung; Vector: pOTB7; Site l: XhoI; Site 2:
ECORI, DNA made by oligo-dT priming. Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
Superscript I RT (Life Technologies). Note: this is a
NIH_MGC Library."
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                  Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP/Gazdar
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
Plate: LLCM2763 row: d column: 22
High quality sequence start: 57
High quality sequence stop: 392.
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Institute of Biology - University of Brasilia
Campus Universitario, Asa Norte, Brasilia, DF 70910-900, BRA
Tel: 55 61 349 8413
Fax: 55 61 349 8411
Email: msueli@unb.br
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E (bases 1 to 107)

S Hedley, P., Liu, H., Caldwell, D., McCallum, N., Mudie, S., Cardle, L.,
Rameay, L., Marchay, G., Marshall, D.F.M. and Waugh, R.
Bameay, L., Marchay, G., Marshall, D.F.M. and Waugh, R.
Development of Barley Transcriptome Resources

Unpublished (2001)

On Feb 1, 2002 this sequence version replaced gi:18472308.

Contact: Waugh R, Marshall DF
Genome Dynamics/Computational Biology
Scottish Crop Research Institute
Invergowrie, Dundee, DD2 SDA, Scotland, UK
Tel: 00 44 1382 562731
Fax: 00 44 1382 562426
Email: est@scri.sari.ac.uk
All sequence has a Phred quality score of 20 or over
Seq primer: M13 reverse.
Seq primer: M13 reverse.
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CA003765
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Hordeum vulgare subsp. vulgare cDNA clone EBma05_SQ004_L14 5', mRNA
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Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.
1 (bases 1 to 419)
Zhang,H., Potokina,E., Michalek,W., Weschke,W., Stein,N. and
                                                                                                                                           Hordeum vulgare subsp. vulgare
Sukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Pooideae, Triticeae, Hordeum.
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/cultivar="Optic"
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Pred. No. 6.7e+03;
0; Mismatches 1;
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/lab_host="DH10B"
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                                                                                                                                                                                             CNS026IH 15P-2000 Tetraodon nigroviridis genome survey sequence PUC-Ori end of clone 241C17 of library G from Tetraodon nigroviridis, genomic survey
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BP 191 91006 EVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Buteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Tetradontoidea; Tetraodontidae; Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C., Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and Weissenbach, J. Characterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Roest Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C., Bernot, A., Pizames, C., Wincker, P., Brottier, P., Quetier, F., Saurin, W. and Weissenbach, J. Estimate of Human gene number provided by genome-wide analysis using Tetraodon nigroviridis DNA sequence Nat. Genet. 25 (2), 235-238 (2000)
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/note="Genoscope sequence ID : COAG241AB09SP1~end
PUC-Ori"
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Pred. No. 4.4e+03;
1; Mismatches 0;
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/db_xref="taxon:99883"
/clone="241C17"
                                                                                                                                                                                                                                                                                                                                      GSS; genome survey sequence.
Tetraodon nigroviridis
Tetraodon nigroviridis
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AL183410.1 GI:7821514
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94.1%;
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Best Local Similarity
Matches 16; Conserv
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Gaps

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Hordeum vulgare subsp. vulgare

Bukaryorts, Viridiplantes, Streptophyta; Embryophyta; Tracheophyta;

Bukaryota; Viridiplantes, Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Pooideae; Triticeae; Hordeum.

El (bases l to 454)

Kramer, A., Feilner, T., Possling, A., Radchuk, V., Weschke, W.,

Buerkle, L. and Kersten, B.

Application of the protein microarray technology for the identification of expression library derived target proteins for barley protein kinase CK2

Unpublished (2003)

Contact: Birgit Kersten* and Winfriede Weschke**

*Plant Protein Chip Group, Department Lehrach, **Department Molecular Genetics, Gene Expression Group

*Max-Dlanck-Institute for Molecular Genetics, **Institute of Plant Genetics and Crop Plant Research Gatersleben

*Innestr. 73, D-14195 Berlin, Germany, **Corrensstrasse 3, D-06466

Gatersleben, Germany

Tel: **49(0)30/84131648, **449(0)394825237

Email: *kersten@molgen.mpg.de, **weschke@ipk-gatersleben.de

Innert Length: 454 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                            Clone 11b- Human Retinal pigment epithelium/choroid cDNA (Un-normalized, unamplified): cs. /note="Corgan: Bye, Vector: pcMvSPORT6; Two different donor eyes (75-80 years old) yielded approximately 600 mg of dissected RPE/choroid tissue. This in turn yielded 340 ug of cotal RNA and 7 ug of mRNA. A directionally cloned cDNA library in the pcMvSpORT6 vector was constructed at Life Technologies (Rockville, MD; now part of Invitrogen Corp),
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BES1824108d24 BES1824 Hordeum vulgare subsp. vulgare cDNA clone
MPMGp2010D248 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chttp://www.invitrogen.com/>). The library code
deaignation was cs. For this library, cDNA inserts were
cloned.into the NotI/Mull sites of the vector. EST
analysis was performed on the unamplified library at the
NIH Intramural Sequencing Center (NISC)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     essentially following the protocols of the SuperScript Plasmid System (Invitrogen Corp. <a href="http://www.invitrogen.com/">http://www.invitrogen.com/</a>). The library code
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91.1%; Score 16.4; DB 6; Length 438; 94.4%; Pred. No. 5.6e+03; ive 0; Mismatches 1; Indels
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/organism="Hordeum vulgare subsp. vulgare"
   reverse primer (ABI).
                                                                                                                                                                                                                                         tissue_type="RPE/choroid"
/dev_stage="Adult"
/lab_host="EMDH10B"
                                                                                                         /organism="Homo sapiens"
                                                                                                                                          /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="cs09h05"
Seg primer: M13RP1 reverse pr
Location/Qualifiers
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/note="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of CDNA); Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NOT present, as well as the EcoRIadapter used for cloning. To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamH1, SalI, PBLI). NOTE: Also due to the cloning system used Blue/white selection for recombinate is not 100% reliable."
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(Dases 1 to 438)
Wistow,G., Bernstein,S.L., Wyatt,M.K., Farris,R.N., Behal,A., Vochman,J.W., Bouffard,G., Smith,D. and Peterson,K.
Expressed sequence tag analysis of human RPB/choroid for the NEIBank Project: Over 6000 non-redundant transcripts, novel genes
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                             Contact: Stein Nils
Molecular Markers Group, Department Genbank
Molecular Markers Group, Department Genbank
Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
Tel: 039482-5522
Fax: 039482-5595
F
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/dev_stage="0-16 hours after imbibition"
/lab_host="XLI0-Gold"
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Section on Molecular Structure and Function
National Eye Institute
6/311, NIH, Bethesda, MD 20892-2740, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /sub_species="vulgare"
|db_xref="GABI:258977"
|db_xref="taxon:112509"
|clone="HS15H23"
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Plate: 09 row: h column: 05
                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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/cultivar="barke"
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Best Local Similarity 94.4
Matches 17; Conservative
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Fax: 301 496 0078
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22103460
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Gaps

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/mol type="mrkNA"
//mol type="mr
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/clore lib="0R_CBa"
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drk treated 36 hrs before harvest"
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bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza.
I (Dases 1 to 487)
Kim, H., Yu,Y., Wissotski,M., Yost,D., Stum,D., Rao,K., Luo,M.,
Jetty,R., Kudrna,D., Muller,C., Hatfield,J., Soderlund,C. and
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0
                                                                                                                                             /clone="MPMGp20100248"
/tissue_type="embryosac"
/dev_stage="0-10 DAF (days after flowering)"
/lab_host="E. coli, SCS-1/pSE111"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91.1%; Score 16.4; DB 7; Length 454; 94.4%; Pred. No. 5.6e+03; tive 0; Mismatches 1; Indels 0
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OMAP project
Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomics Institute
University of Arizona
Forbes Building Room 303, Tucson, AZ 85721-0036, USA
Fel: S20 621 1259
Fax: 520 621 1259
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BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0024 row: F column: 19
Seq primer: TAA TAC GAC TCA TAG GG
Class: BAC ends.
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/organism="Oryza rufipogon"
/mol_type="genomic DNA"
/db_xref="taxon:4529"
/clone="OR_GBA0024F19"
/tissue_type="young leaves"
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                                                                                                                       'db_xref="taxon:112509"
                                                  'sub_species="vulgare"
'db_xref="GABI:945085"
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Search completed: April 29, 2005, 11:55:24
Job time : 1690.62 secs
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Best Local Similarity 94.4
Matches 17; Conservative
      Unpublished (2004)
    JOURNAL
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                                                                                                      CL726375 529 bp DNA linear GSS 26-JUL-2004
OR_BBa0056K14.f OR_BBa Oryza rufipogon genomic clone OR_BBa0056K14
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Oryza rufipogon
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza,
I (basea I to 539)
Kim, H., Yu, Y., Stum, D., Yost, D., Rao, K., Luo, M., Jetty, R.,
Kudrna, D., Muller, C., Hatfield, J., Soderlund, C. and Wing, R.
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza,
1 (Bases 1 to 532)
Kim, H., Yu, Y., Stum, D., Yost, D., Rao, K., Luo, M., Jetty, R.,
Kudrna, D., Muller, C., Hatfield, J., Soderlund, C. and Wing, R.
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91.1%; Score 16.4; DB 9; Length 529;
Best Local Similarity 94.4%; Pred. No. 5.5e+03;
Matches 17; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Rod A. Wing
Arizona Genomics Institute
University of Arizona
Forbes Building Room 303, Tucson, AZ 85721-0036, USA
Tal: 520 629 9595
Fax: 520 621 1259
Email: http://genome.arizona.edu
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1. 529
(organism="Cryza rufipogon"
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/clone="CR_BBa0056K14"
/tissue_type="young leaves"
/lab_host="DH108-T1 phage resistant"
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BACKWARD: CAC TCA TTA GGC ACC CCA
Insert Length: 161 Std Error: 0.00
Plate: 0056 row: K column: 14
Seg primer: TAA TAC GAC TCA TAG GG
Class: BAC ends.
                                                                                                                                          5', genomic survey sequence.
CL726375
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GSS.
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/note="Vector: pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
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Contact: Rod A. Wing
Arizona Genomics Institute
University Arizona Arizona
Forbes Buliding Room 303, Tucson, AZ 85721-0036, USA
Tel: 520 626 9595
Fax: 520 621 1259
Email: https://genome.arizona.edu
                                                                                                                                                                                 FORWARD: TAA TAC GAC TCA CTA TAG GG
BACKWARD: CAC TCA TTA GGC ACC CCA
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Sequence 3804, Ap Sequence 4804, Ap Sequence 2837, Ap Sequence 376, App

8068, Ap 22, Appl 36, Appl

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3845, Ap 3349, Ap 10, Appl

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10, Apr 3473,

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Sequence:

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Sequence 1195, Application US/09270767
Patent No. 6703491
GENERAL INFORMATION
GENERAL INFORMATION
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 1195
LENGTH: 448
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TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: FIDE Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 16477
LENGTH: 448
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US-09-252-991A-13784

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US-09-318-446-36

US-09-252-991A-3804

US-09-902-540-376

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US-09-902-540-376

US-09-489-039A-349

US-09-489-039A-349

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Pred. No. 4.3e+02;
0; Mismatches 1;
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Patent No. 6703491
GENERAL INFORMATION:
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; ORGANISM: Drosophila melanogaster
US-09-270-767-1195
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Sequence 329, App
Sequence 859, App
Sequence 1514, A
Sequence 3, Appli
Sequence 3, Appli
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Sequence 59, Appl
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Sequence 6246, Ap
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Sequence 1603
Sequence 45,
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Sequence 12
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(c) 1993 - 2005 Compugen Ltd.
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US-09-188-039A-6556
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## APPLICANT: Higgins, Colleen M.

### TITLE OF INVENTION: Compositions Isolated from Plant Cells

### TITLE OF INVENTION: and Their Use in the Modification of Plant Cell Signaling

### TITLE OF INVENTION: and Their Use in the Modification of Plant Cell Signaling

### FILE REFERENCE: 11000.102802

### CURRENT PILION OWNBER: US/10/101,464A

### CURRENT PILION DATE: 2002-03-18

### PRIOR APPLICATION NUMBER: 09/228,986

### PRIOR FILING DATE: 1999-01-12

### PRIOR FILING DATE: 1999-01-12

### PRIOR FILING DATE: 1999-11-01

### PRIOR FILING DATE: 1999-11-01

### PRIOR FILING DATE: 2000-01-11

### PRIOR PRIOR DATE: 2000-01-11

### PRIOR FILING DATE: 2000-01-11
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Sequence 859, Application US/10101464A

Patent No. 6768041

GENERAL INFORMATION:
APPLICANT: Nieuwenhuizen, Nicolaas
APPLICANT: Higgins, Colleen M.
TITLE OF INVENTION: Compositions Isolated from Plant Cells
TITLE OF INVENTION: and Their Use in the Modification of Plant Cell Signaling
FILE REFERENCE: 11000.1020c2
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; Sequence 329, Application US/09640211A
; Patent No. 6833446
; GENERAL INFORMATION:
APPLICANT: Wood, Marion
; APPLICANT: Shenk, Michael A.
APPLICANT: Glenn, Matthew
TITLE OF INVENTION: Compositions and Methods for the
TITLE OF INVENTION: Modification of Gene Transcription
FILE REFERENCE: 11000.1021CIU
; CURRENT APPLICATION NUMBER: US/09/640,211A
; CURRENT FILING DATE: 2000-08-16
; NUMBER OF SEQ ID NOS: 2368
; SOFTWARE: PateSEQ for Windows Version 4.0
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Best Local Similarity 94.1%; Pred. No. 9.9e+02;
Matches 16; Conservative 0; Mismatches 1;
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ORGANISM: Eucalyptus grandis
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Best Local Similarity 94.1
Matches 16; Conservative
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LENGTH: 1008
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                                                                                                                                                                           Sequence 7939, Application US/09252991A
Sequence 7939, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: AERIGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: AERIGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: MUMBER: US/09/252,991A
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NOS: 33142
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Patent No. 6551795
GENERAL INFORMATION:
FAPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: AERGIGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REPRENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR PLING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR PLING DATE: 1998-02-18
PRIOR PLING DATE: 1998-02-18
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3.10-10-464A-282/c
; Sequence 282, Application US/10101464A
; Patent No. 6768041
; GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Strabala, Timothy
; APPLICANT: Nieuwenhuizen, Nicolaas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Pseudomonas aeruginosa
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ORGANISM: Pseudomonas aeruginosa
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      20 TGCGCCGCGGAGGGGGG
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Matches 16, Conservative
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US-09-252-991A-7799
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Sequence 8, Application US/09827688
Patent No. 6821955
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: CASCN, FRANK
APPLICANT: CASCN, FRANK
APPLICANT: BHOGAL, BALBIR
TITLE OF INVENTION: AGENTS
FILE REFERENCE: P01949US1/10004014
CURRENT APPLICATION NUMBER: US/09/827,688
CURRENT APPLICATION NUMBER: 60/195,680
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
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APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Slater, Steven C.
APPLICANT: Slater, Steven C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)B
CURRENT APPLICATION NUMBER: US/09/902,540
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: 60/217,883
PRIOR FILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 1210
LENGTH: 26289
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Pred. No. 7.1e+02;
0; Mismatches 1; Indels 0:
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    PRIOR APPLICATION NUMBER: PCT/US99/01038
PRIOR FILING DATE: 1999-01-15
PRIOR PLILING DATE: 1998-01-16
PRIOR PLILING DATE: 1998-01-16
NUMBER OF SEQ ID NOS: 3
SEQ ID NO 3
LENGTH: 16011
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SOFTWARE: PatentIn version 3.0
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Best Local Similarity 94.1%;
Matches 16; Conservative
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ORGANISM: Myxococcus xanthus
US-09-902-540-1210
                                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: Rattus norvegicus
US-09-600-319-3
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US-09-827-688-8/c
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Sequence 3, Application US/09600319

Fatent No. 6780610

GENERAL INFORMATION:

APPLICANT: Owens, Gary

APPLICANT: Madeen, Cort

TITLE OF INVENTION: Myosin Heavy Chain (SM-MHC) Promoter/Enhancer

TITLE OF PAPLICATION: Myosin Heavy Chain (SM-MHC) Promoter/Enhancer

TITLE OF LINGRATION: Myosin Heavy Chain (SM-MHC) Promoter/Enhancer

CURRENT APPLICATION NUMBER: US/09/600,319

CURRENT FILING DATE: 2001-10-11
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APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 15514
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Pred. No. 7.6e+02;
CURRENT APPLICATION NUMBER: US/10/101,464A
CURRENT FILING DATE: 2002-03-18
PRIOR PLING DATE: 2000-11-01
PRIOR PLING DATE: 2000-11-01
PRIOR PLING DATE: 1999-01-12
PRIOR APPLICATION NUMBER: 09/228,986
PRIOR PLING DATE: 1999-01-12
PRIOR PLING DATE: 1999-11-01
PRIOR FILING DATE: 1999-11-01
PRIOR FILING DATE: 2000-01-11
NUMBER OF SEQ ID NOS: 989
SOFTWARE: PSELSEQ for Windows Version 4.0
SEQ ID NO 859
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94.1%;
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US-10-101-464A-859
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Best Local Similarity 94.1;
Matches 16; Conservative
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US-09-949-016-15514
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US-09-382-552-59
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Fatent No. 6833447
GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Goldman, Roger C.
TITLE OF INVENTION: Mycococcus xanthus Genome Sequences and Uses Thereof
FILE REFERENCE: 38-10(15849)B
CURRENT PILING DATE: 2001-07-10
PRIOR FILLING DATE: 2000-07-10
PRIOR FILLING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
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APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
APPLICANT: Wiegand, Roger C.
APPLICANT: Wiegand, Roger C.
FILLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILLE REFERENCE: 38-10 (1584) B CURRENT APPLICATION NUMBER: US/09/902,540
PRIOR APPLICATION NUMBER: 60/217,883
PRIOR FILING DATE: 2000-07-10
PRIOR FILING DATE: 2000-07-10
PRIOR FILING NUMBER: 60/217,883
PRIOR FILING NUMBER: 60/217,883
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                                     85.6%; Score 15.4; DB 4; Length 154746; 94.1%; Pred. No. 5.4e+02; ive 0; Mismatches 1; Indels 0;
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                                                                                                                                                                                                                                                                    Sequence 6323, Application US/09902540
Patent No. 6833447
GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Hinkle, Gregory J.
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                                                                                                                           2 GCGCCGGCGCAGGGGGG 18
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Best Local Similarity 100.
Matches 15; Conservative
                                                                               16; Conservative
                                                           Sest Local Similarity
                                                                                                                                                                                                                                 RESULT 12
US-09-902-540-6323
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US-09-827-688-8
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GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ABENGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR PILING DATE: 1998-02-18
PRIOR PILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NOS: 33142
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Pred. No. 2e+03;
0; Mismatches 2; Indels (
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Pred. No. 1.9e+03;
0; Mismatches 2; Indels
                                                                GENERAL INFORMATION:
APPLICANT: Brown, Jr., Robert H.
APPLICANT: Liu, Jing
APPLICANT: Liu, Jing
APPLICANT: Liu, Jing
APPLICANT: As assahi
APPLICANT: Act, Masashi
APPLICANT: Act, Masashi
APPLICANT: Act, Masashi
APPLICANT: Act, Masashi
TITLE OF INVENTION: DYSFERLIN, A GENE MUTATED IN
TITLE OF INVENTION: GIRDLE MUSCULAR DYSTROPHY
CURRENT APPLICATION NUMBER: US 60/097,927
EARLIER FILING DATE: 1998-08-25
NUMBER OF SEQ ID NOS: 233
SOFTWARE: FastSEQ for Windows Version 3.0
IENGTH: 246
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; Sequence 3760, Application US/09252991A
; Patent No. 6551795
US-09-382-552-59
; Sequence 59, Application US/09382552
; Patent No. 6673909
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Best Local Similarity 88.7v
Local Similarity 16.7v
Local 16; Conservative
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Best Local Similarity 88.9
Matches 16; Conservative
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Title: Perfect score:

Sequence:

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Run on:

Scoring table:

Searched:

Database

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Continuation (26 o
Continuation (16 o
AP005221 Corynebac
BV137310 PZA00073
BV137302 PZA00073
BV137319 PZA00073
BV137319 PZA00073
BV137315 PZA00073
BV137315 PZA00073
BV137310 PZA00073
BV137301 PZA00073
BV137309 PZA00073
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 39 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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BV137307 F
BV137313 F
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/noTe="Synthetic DNA"
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Sequence 39 from Patent WO0151500.
AXI94439
AXI94439.1 GI:15385095
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         AC102704
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AX46539 Sequence
AX465391 Sequence
AX19440 Sequence
AX194481 Sequence
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AX194481 Sequence
AX19450 Sequence
AX152212 Sequence
AX152214 Sequence
AX152214 Sequence
AX152214 Sequence
AX152214 Sequence
AX152215 Sequence
AX152213 Sequence
AX152213 Sequence
AX152213 Sequence
AX194488 Sequence
AX194488 Sequence
AX194488 Sequence
                                                                 April 29, 2005, 04:31:54; Search time 791.351 Seconds (without alignments) 1224.620 Million cell updates/sec
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           GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                              4708233 segs, 24227607955 residues
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Maximum Match 100%
Listing first 45 summaries
                                                 nucleic search, using sw model
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AX465431
AX465432
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Oligodeoxynucleotide and its use to induce an immune response
Patent: NO 0151500-A Bl 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Oligodeoxynucleotide and its use to induce an immune response
Patent: WO 0151500-A 40 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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/organism="synthetic construct"
| mol type="unassigned DNA"
| db xref="taxon:32630"
| note="Synthetic oligonucleotide"
                                                                                                  100.0%; Score 20; DB 6; I
100.0%; Pred. No. 1.3e+02;
vative 0; Mismatches 0;
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Pred. No. 7.1e+02;
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92.0%; Score 18.4; E
Best Local Similarity 95.0%; Pred. No. 7.1e
Matches 19; Conservative 0; Mismatches
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Sequence 40 from Patent WO0151500.
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Sequence 81 from Patent WO0151500.
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       l Klinman,D., Ishii,K. and Verthelyi,D.
Klinman,D., Ishii,K. and Verthelyi,D.
Oligodeoxynucleotide and its use to induce an immune response Patent: WO 0151500-A 41 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Vaccine against RSV
Batent: WO 0211761-A 59 14-FEB-2002;
FERRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Vaccine against RSV
Satent: WO 0211761-A 57 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 20; Conservative 0; Mismatches 0; Indels
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/mol type="unassigned DNA"
/mol type="synthetic oligonucleotide"
/note="Synthetic oligonucleotide"
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/mol_type="unassigned DNA"
/bb_xref="taxon:32630"
/note="Synthetic DNA"
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Sequence 59 from Patent WO0211761.
AX465391
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Sequence 57 from Patent W00211761.
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 498 13-DEC-2001;
Biosynexus Incorporated (US)
Location/Qualifiers
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/organism="synthetic construct"
/mol_type="unassigned DNA"
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/noTe="Synthetic HDR"
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Sequence 509 from Patent WO0193902.
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Sequence 542 from Patent WO0193902.
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/noTe="Synthetic HDR"
Sequence 498 from Patent WO0193902.
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 82 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Oligodeoxynuclectide and its use to induce an immune response
Patent: WO 0151500-A 100 19-JUL-2001;
Secretary of the Department of Health and Human Services (US)
Location/Qualifiers
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Sequence 82 from Patent WO0151500.
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Matches 19; Conservative
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Best Local Similarity 95.0
Matches 19; Conservative
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AX194482
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AX194500
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PAT 06-FEB-2002
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Vaccine against RSV
Patent: WO 0211761-A 100 14-PEB-2002;
HERRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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92.0%; Score 18.4; DB 6; Length 20;
Best Local Similarity 95.0%; Pred. No. 7.1e+02;
Matches 19; Conservative 0; Mismatches 1; Indels
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Immunostimulatory rna/dna hybrid molecules
Patent: WO 0193902-A 519 13-DEC-2001;
Biosynexus Incorporated (US)
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                                                              Score 18.4; DB 6;
Pred. No. 7.1e+02;
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Sequence 100 from Patent W00211761.
AX465432
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Sequence 519 from Patent WO0193902.
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Vaccine against RSV
Patent: WO 0211761-A 99 14-FEB-2002;
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
MEDICINE (US)
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Vaccine against RSV
Patent: WO 0211761-A 58 14-FEB-2002;
PHERRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY
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   Immunostimulatory rna/dna hybrid molecules
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			XX TO XX	AC AC	1 53	2 图 3	K K K K K K K K K K K K K K K K K K K	(8)	\	₹ 23	5 E S	E E E	ZEEES	₹ ដ }	1 83	EEEEX

The invention relates to novel immunogenic CDG oligodeoxynucleotides (AACG0591-C073). The Oligonuclectide are at least 10 bases long and comprise one of the generic sequences 5-NNNT-CDG-WNNA-3 or 5'-RY-CDG-RY 3'. The central CDG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides of the invention and a targetting agent, and apharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cell-mediated response or a humoral [B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CDG-RY-3' being able to induce a humoral tesponse. It is thought that after administration, the oligonucleotide acts on antigen presenting cells deliging to activation of natural killer (NK) cells. A cell-mediated or induction of antimer response is useful for treating, preventing or an immune response is useful for treating, preventing or an induction of natural killer (NK) cells. A cell-mediated or induction of an immune response is useful for a conditions, and the infections which may be treated include ezema, allergic conditions which may be treated include ezema, allergic conditions which may be treated include selection. Conditions, and the infections which may be treated include selection in conditions, and the infections which may be treated include selection. Conditions, and the infections which may be treated include ezema, allergic conditions which may be treated i Claim 4; Page 30; 46pp; English.

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

Gaps 0; 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 11; 0; Indels 100.0%; Preu. ... Best Local Similarity 100.0 Matches 20; Conservative Query Match

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AAC80621 standard; DNA; 20 BP 14-FEB-2001 (first entry) AAC80621; RESULT 2 AAC80621

Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:41.

CpG oligodeoxynucleotide, unmethylated, antigen-presenting cell; immunogenic; cytokine release; natural killer cell; MK cell activation; cell-mediated immune response; recell response; b-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; fungal; fungal; protozoal; parasitic; tuberculosis, AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; blological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic

The invention relates to novel immunogenic CgG oligodecxymulocitoridases (AAC80581-C80723). The oligomucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CgG-WNNN-3' or 5'-RY-CgG-RY optionally have phosphorothicate linkages which make them more resistant to degradation. The invention also relates to an oligomucleotide delivery complex comprising an oligomucleotide of the invention and a targetting complex comprising an oligomucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligomucleotide of delivery complex. The oligomucleotides are able to induce either a cell-complex complex. The oligomucleotides are able to induce either a cell-complex complex and those of the sequence 5'-RY-CpG-RY-3' being able to induce a humoral response. It is thought that after a coll-mediated Trechl) response. It is thought that after a deministration, the oligomucleotide acts on antigen-presenting cells administration, the oligomucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immunogenic CpG oligomucleotide is administrated either alone or combination with an anti-allergenic agent or anti-infection, where an immunogenic CpG oligomucleotide is administrated either alone or combinations, and the infections which may be treated include eczema, allergic conditions which may be treated include eczema, allergic erythematosus, rheumatoid arthritis and enhinement of an autoimmune disorder (e.g., lumburo ec Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms The invention relates to novel immunogenic CpG oligodeoxynucleotides allergies, cancer, and autoimmune disorders and resulting from exposure to a bio-warfare agent. Claim 4; Page 30; 46pp; English. Verthelyi 12-APR-2000; 2000WO-US009839 99US-0128898P Klinman D, Ishii K, WPI; 2001-006880/01. (VERT/) VERTHELYI D. (KLIN/) KLINMAN D. WO200061151-A2. 12-APR-1999; 19-OCT-2000. (/ISHI)

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonucleotide is preferably administered to Thymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG oligodeoxynucleotide of the invention

Gaps .; 0 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 11; 0; Indels 0; Mismatches Query Match
Best Local Similarity 100.0

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GGTGCGTCGACGCAGGGGG 20 GGTGCGTCGACGCAGGGGG 20

δ 셤 RESULT 3

AAS09591 standard; DNA; 20 BP.

AAS09591

26-SEP-2001 (first entry)

AAS09591;

RESULT 4 AAS09589

BP.

AAS09589 standard; DNA; 20

(first entry)

26-SEP-2001

AAS09589;

Immunoreactive CpG sequence-containing oligonucleotide #41.

IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; 88. sequence; immune response; non-B cell activation; interferon

Synthetic.

WO200151500-A1.

19-JUL-2001

12-JAN-2001; 2001WO-US001122.

14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Ishii K, Klinman D,

WPI; 2001-442129/47.

prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG Oligodeoxynucleotides for inducing an immune response to treat and sequences

Claim 5; Page 34; 48pp; English.

rucleotides comprising multiple Cod sequences, where one of the Cod sequences is different from another of the multiple Cod sequences. The ODN are useful for inducing an immune response, preferably a cell-mediated immune response, involving non-B cell activation, interferon gamma (IFN-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune of system e.g. autofimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiency virus (HIV) and malaria, for treating immune system deficiency virus explains and extremented as rheumatoid arthitis and Leishmania and multiple sclerosis, infections including Francisella, schistosomiasis, tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Ebola, AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10 Anthrax and Listeria %XCCCCCCCCCCCCCCCCCCCCCCX8XHHHHXBXHXBXHXBXBXBXBXBXBX8XXXXXXXX

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;

Gaps . 0 100.0%; Score 20; DB 4; Length 20; 100.0%; Pred. No. 11; .ive 0; Mismatches 0; Indels Query Match Best Local Similarity 100.0 Matches 20; Conservative

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IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; altergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antibense therapy; eczema; allergic rhinitis; coryza; hay fever; utticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rhematonia arthritis; multiple sclerosis; schistosomiasis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss. sequence; immune response; non-B cell activation; interferon gamma; Immunoreactive CpG sequence-containing oligonucleotide #39.

Synthetic

WO200151500-A1

19-JUL-2001.

12-JAN-2001; 2001WO-US001122.

14-JAN-2000; 2000US-0176115P.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-442129/47.

Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG sequences.

Claim 5; Page 33; 48pp; English.

ARANUSISTAMNUSHORIES TOUR SUBJECT SORTH ARANUSISTAMNUSHORIES (UND) OI at least 10 mulleotides comprising multiple CDG sequences, where one of the CDG sequences is different from another of the multiple CDG sequences. The CDN are useful for inducing an immune response, preferably a cell-contact of a manner response, involving non-B cell activation, interferon cell activation, antibody and interleukin-6 production in a hose, for treating, preventing or ameliorating an allergic reaction, e.g. subma, concer, e.g. solid tumour cancer, a disease associated with the immune concer, e.g. solid tumour cancer, a disease associated with the immune concer, e.g. solid tumour cancer, a disease associated with the immune concer, e.g. solid tumour cancer, a disease associated with the immune concer, e.g. solid tumour cancer, immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is captured in antisense therapy. The ODN are useful for treating, preventing or ameliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies coryza, hay fever, bronchial asthma, urticaria (hives), food allergies capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and capainst hepatitis A, B and C, human immunodeficiency virus (HIV) and capture confinence diseases such as rheumatosia and antiple sclerosis, infections including Francisella, schistosomiasis, the hippies clerosis, infections including Francisella, including Bbola, hiphysay and interest immunodeficiency deficiency deficiency including Bbola, hiphysay and sittered immunodeficiency deficiency deficiency deficiency deficiency deficiency including Bbola, hiphysay and sittered immunodeficiency additions deficiency defi AAS09551-AAS09662 represent oligodeoxynucleotides (ODN) of at least 10

Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0. Other;

Matches

8 ద RESULT 5 ABK46469

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The invention describes a vaccine comprising one or more epitopes of a Paramyxoviridae F protein, and one or more CpG (cytosine followed by guanine linked by phosphare bond)-oligodideoxynucleotides (DNBs). The vaccine is useful for vaccinating a patient especially against viruses of the Paramyxoviridae family e.g. respiratory syncytial virus (RsV), the primary cause of viral bronchiolitis and pneumonia in infants and particularly implicated in death of infants that as been particularly implicated in death of infants that are premature, have bronchopulmonary dysplasia, or congenital heart conditions. This sequence represents an oligodideoxynucleotide that can be used in the creation of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vaccine for immunizing patient against respiratory syncytial virus, has epitopes of Paramyxoviridae F protein, and cytosine followed by guanite linked by phosphate bond-oligodideoxynucleotides.
                                                                                                                           oligdideoxynucleotide; ODN; virucide; vaccine;
                                                                                     Immunostimulatory unmethylated CpG oligodideoxynucleotide #57.
                                                                                                                                                 Paramyzoviridae, F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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01-SEP-2000; 2000US-0229307P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Klinman
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Best Local Similarity
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                  ABK46467;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vaccine for immunizing patient against respiratory syncytial virus, has epicopes of Paramyxoviridae F protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides.
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                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                               unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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                                         ô
                                                                                                                                                                                                                                                                                                                                       Immunostimulatory unmethylated CpG oligodideoxynucleotide #59.
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Score 20; DB 4; Length 20; Pred. No. 11; 0; Mismatches 0; Indels
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  100.0%;
ilarity 100.0%;
Conservative 0
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01-SEP-2000; 2000US-0229307P.
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                                                                                                                                                                                                                                                                                                          (first entry)
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es 20; Conserv
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Best Local Similarity
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Gaps

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Indels

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BP.

ABK46467 standard; DNA; 20

ABK46467 ID ABK4 RESULT 6

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Best Loc Matches

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Klinman
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sterically stabilised cationic liposome; SSCL; ODN; oligodeoxynucleotide; tuberculosis; cytokine; leishmaniasis; AIDS-associated Kaposi's tumour; thyroid; cancer; allergy; eczema; allergic rhinitis; coryza; hay fever; schlstosomiasis; interferon gamma; lupus erythematosus; antimicrobial; asthma; urticaria; autoimmune disease; diabetes; rheumatoid arthritis; CpG motif; interleukin-13; cytostatic; tularemia; malaria; psoriasis; multiple sclerosis; infection; tumour; ss.
                                                                                                                                                                                                                                          The present sequence is that of CpG oligodeoxynucleotide DV32 of the invention. A claimed method for generating dendritic cells involves contacting a dendritic cell precursor, especially a monocyte, with a D type oligodeoxynucleotide (see ACC48294) containing a central unmethylated CpG motif. The method is useful for generating mature dendritic cells and enhancing T cell responses, thus enhancing antigen presentation. Mature dendritic cells are useful for tumour immunotherapy, for augmenting an immune response to an infectious agent or to a vaccine, and as vaccines to prevent future infection or to activate the immune system to treat diseases such as cancer. Mature dendritic cells may also
                                                                                                                                                               Generating mature dendritic cells for tumor immunotherapy or as vaccines
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                          for activating the immune system to treat diseases such as cancer, comprises contacting a dendritic cell precursor with a D type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D class CpG ODN sequence useful for encapsulating in SSCL, DV32.
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0
                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 20; DB 8; Length 20; 100.0%; Pred. No. 11;
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                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 2 A; 4 C; 12 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                  to produce activated T lymphocytes
                                                                                         (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                 Verthelyi D;
                                                                                                                                                                                                                        Disclosure; Fig 8; 69pp; English.
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                                             13-AUG-2002; 2002WO-US025732
                                                                14-AUG-2001; 2001US-0312190P
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25-JUL-2002; 2002US-00206407.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 100.
                                                                                                                Gursel M,
                                                                                                                                                                                                  oligodeoxynucleotide
                                                                                                                                       WPI; 2003-300874/29.
WO2003020884-A2.
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                                                                                                                Klinman DM,
                       13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC83120;
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                                                                                                                                                                                                                                                                                                                                                                  be used
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Matches
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The invention relates to sterically stabilised cationic liposomes (SSCL)
which comprises a cationic lipid, a co-lipid, stabilising agent and
conceptuating a K type oligodeoxynucleotide (ODN) including a CpG motif.
The invention is useful in pharmaceutical composition for impairing
crowth of a solid tumour cell (e.g. human tumour cell) bearing an
interleukin-13 receptor in a subject; for stimulating an immune response,
which is expression of a cytokine (e.g. interferon gamma), particularly
immunotherapeutic response against tumours or stimulating an invito immune edil, and for inducing an immune response against an
infectious agent e.g. virus, bacteria and fungus. It is also useful for
delivering oligodeoxynucleotides including a CpG motif in clinical
applications; for treating infectious diseases (e.g. tularemia, malaria,
cancinications; for treating infectious diseases (e.g. tularemia,
applications; for treating infectious diseases (e.g. tularemia,
cetc); allergy (e.g. eczema, allergic rhinitis or coryza, hay fever,
bronchial or allergic asthma, urticaria, food allergies), autoimmune
diseases (e.g. diabetes, rheumatoid arthritis, lupus erythematosus and
multiple solerosis) and psoriasis. The present sequence is a D class CpG
multiple solerosis)
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                                                                                                                                                                                                                                including a CpG motif in clinical applications, comprises a cationic
lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.
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neovascularisation; angiogenesis; vulnerary; vasotropic;
antiarteriosclerotic; gene therapy; skin graft; male pattern baldness;
atherosclerosis; ischaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                  RK;
                                                                                                                                                                                                composition for delivering oligodeoxynucleotides
                                                                  Puri
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                                                                  BH,
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                                                                  Joshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ODN potentially useful for encapsulating in SSCL
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                                                                  Kawakami
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(USSH ) US DEPT HEALTH & HUMAN SERVICES.
(USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                      Disclosure, Fig 10C, 110pp; English.
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                                                                  Ishii KJ,
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Best Local Similarity 100.
                                                                  Gursel I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zheng M,
                                                                                                                                 WPI; 2003-482260/45.
                                                                                                                                                                                                Cationic liposome
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Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms

Verthelyi D;

Ishii K,

Klinman D,

(VERT/) VERTHELYI D.

KLINMAN D.

(KLIN/) (ISHI/)

WPI; 2001-006880/01.

allergies, cancer, and autolmmume ursolvers and resulting from exposure to a bio-warfare agent.

Claim 4; Page 36; 46pp; English.

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The present invention describes a method for inducing the production of vascular endothelial growth factor (VEGF) by a cell comprising contacting the call with a CpG oligonucleotide and therefore inducing the production of twe cell. Also described: (1) inducing neovascularisation in a tissue where the formation of new blood vessels is desired, and so inducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an area of the subject where angiogenesis is and so comprising introducing a CpG oligonucleotide to the area, and so promoting angiogenesis in the subject; and (3) screening for an agent that inhibits neovascularisation, comprising administering a CpG oligonucleotide to a non-human mammal and administering a CpG oligonucleotide to a non-human mammal and administering the agent to the agent is effective in inhibition of angiogenesis in the enimal indicates that the agent is effective in inhibiting neovascularisation. The CpG oligonucleotides can be used in gene therapy. The method and the CpG oligonucleotides can be used in inducing angiogenesis or neovascularisation, such as in subjects with a skin graft, subjects who exhibit male pattern baldness, or subjects who have a wound or who have atherestlesselves in this in every angiogenesis or cathering cfor agents that inhibit neovascularisation. The persent sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immuno response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimincobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothloate; ss.
                                 Inducing the production of vascular endothelial growth factor by a cell, useful for inducing angiogenesis, comprises contacting the cell with a CpG oligodeoxynucleotide.
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Pred. No. 11;
; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:82.
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                                                                                                                              Example 7; SEQ ID NO 19; 37pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the present invention
WPI; 2003-559138/52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
es 20; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200061151-A2.
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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5.*NBNT-CpG WNNA-3. or 5.*R2-CpG *-3.*The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages winto make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex or an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cellmediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5.*RY-CpG*Ry-3' being able to induce a humoral tesponse. It is thought that after a definition of the sequence 5.*RY-CpG*Ry-3' being able to induce a humoral tesponse. It is thought that addition and dendritic cells) which then release cytokines, leading to activation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of *- or B-cells. The induction of an immune response is useful for treating, preventing or amelocating an altergic reaction (preferably asthma) or an infection, where an immunogenic CpG oligonicleotide is administered either alone or in combination with an anti-lalergenic agent or anti-infections agent. The induction may also be captured in the treatment of an autoimmune disorder (e.g., lupus conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, capture to an agent of an autoimmune disorder (e.g., lupus capture to an agent of an autoimmune disorder (e.g., lupus capture) and schistosomiasis. Immune response induction may also be associated with immune system deficiency, and symptoms resulting for a vaccine. The oligonucleotide is preferably administered to the host. The present sequence represents an immunogenic CpG oligonecential processes in the pre
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Pred. No. 60;
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99US-0128898P.

12-APR-1999;

12-APR-2000; 2000WO-US009839

Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell:mediated immune response; T-cell response; humoral response; allead; astema; infection; bacterial; virtal; fungal; proctozal; parastic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; nemune deficiency; biological waffare agent; cytostatic; antiarthritic; antimune deficiency; biological waffare agent; cytostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss.

Synthetic.

WO200061151-A2.

19-OCT-2000.

12-APR-2000; 2000WO-US009839.

99US-0128898P 12-APR-1999;

(KLIN/) KLINMAN D.

(VERT/) VERTHELYI D.

Verthelyi D; Klinman D, Ishii K,

WPI; 2001-006880/01.

Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.

Claim 4; Page 36; 46pp; English.

The invention relates to novel immunogenic CpG oligodecoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RY-CpG-RY -3'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cellmediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RY-CpG-RY-3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3' cell-mediated or induce a humoral response. It is thought that after caministration, the oligonucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, communistration of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T or B-cells The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthms), or an infection, where an immunogenic CpG oligonucleotide is administered either atone or in combination with an anti-largenic agent or anti-infections and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, AlDS, conditions, and the infections which may be treated include viral, bacterial, imman and exhibited manual esegons in elegance induction may also be cused in the treatment of an autoimmune disporder (e.g., lupus errothers and achieves and delications with immune system deficiency, and symptom and achieve oligonuclectide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonuclectide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CPG oligodeoxynuclectide of the invention exposure to an agent of biological warfare. An immunogenic CpG

Claim 4; Page 30; 46pp; English.

The invention relates to novel immunogenic CpG oligodeoxynucleotides

(AAC80581-C80723). The oligonucleotide are at least 10 bases long and

comprise one of the generic sequences 5'-NNNT-CpG-WNNN-3' or 5'-RX'-CpG-RX

-3'. The central CpG motif is unmethylated, and the oligonucleotides

coptionally have phosphorothioate linkages which make them more resistant

coptionally have phosphorothioate linkages which make them more resistant

complex comprising an oligonucleotide of the invention and a targetting

agent, and a pharmaceutical composition comprising the oligonucleotide

delivery complex. The oligonucleotides are able to induce either a cell
mediated (T-cell) response or a humoral (B-cell, antibody) response, with

coligonucleotides of the sequence 5'-RY-CpG-RX-3' being able to induce a

cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNNN-3'

being able to induce a humoral response. It is thought that after

administration, the oligonucleotide acts on antigen-presenting cells

(e.g., macrophages and dendritic cells), which then release cytokines,

leading to activation of natural killer (NK) cells. A cell-mediated or

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                                                                                                                                                                                                                                         CpG oligodeoxynucleotide; unmethylated; antigen-presenting cell; immunogenic; cytokine release; natural killer cell; NK cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; allery; asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiallergical; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.
                           Gaps
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  DB 4; Length 20;
                          1; Indels
                                                                                                                                                                                                                  Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:40.
                          0; Mismatches
 Score 18.4;
Pred. No. 60;
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                                                   1 GGTGCGTCGACGCAGGGGG 20
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                                                                           1 gerecercearecaeges
                                                                                                                                           AAC80620 standard; DNA; 20 BP
92.0%;
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                          19; Conservative
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(VERT/) VERTHELYI D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KLIN/) KLINMAN D.
               Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                    AAC80620;
 Query Match
                           Matches
                                                                                                                 RESULT 12
                                                                                                                                AAC80620
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Claim 5; Page 43; 48pp; English

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humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligomoleotide is administered either alone or in combination with an anti-allergenic agent or anti-infectious agent. The allergic conditions which may be treated include eczema, allergic rhinitis, hayfever, utricaria, food allergies and other atopic conditions, and the infections which may be treated include viral, barterial, fungal and protozoal infections such as tuberculosis, ADB, bacterial, fungal and protozoal infections with a tuberculosis, ADB, cleishmania and schistosomiasis. Immune response induction may also be used in the treatment of an autoimmune disorder (e.g., lupus erychematosus, rheumanatoid arthritis and multiple sclerosis), a disease associated with immune system deficiency, and symptoms resulting from exposure to an agent of biological warfare. An immunogenic CpG oligonucleotide, either alone or in combination with an anti-cancer of agent, is useful for treating solid tumour cancer. The induction of an immuno service is a vaccine. The oligonucleotide is preferably administered to lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CpG cpG oligodeoxymucleotide of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; herapeutic; altergy; asthma; cancer; autcimmune disorder; infection; bio-warfare, vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiaais; tuberculosis; acquired immunodeficiency syndrome; AlDS; Leishmania; Ebola; Anthrax; Listeria; ss.
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Best Local Similarity 95.00
مار 19; Conservative
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Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG

(USSH) US DEPT HEALTH & HUMAN SERVICES.

L2-JAN-2001; 2001WO-US001122. 14-JAN-2000; 2000US-0176115P.

19-JUL-2001.

Verthelyi D;

Ishii K,

Klinman D,

WPI; 2001-442129/47.

sednences

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nucleotides comprising multiple CDG sequences, where one of the CDG sequences is different from another of the multiple CDG sequences. The sequences is different from another of the multiple CDG sequences. The conversal for inducing an immune response, preferably a cell-conversal involving an immune response, interferon gamma (IFW-gamma) production or a humoral immune response involving B cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma. Concer, e.g. solid tumour cancer, a disease associated with the immune cancer, e.g. solid tumour cancer or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. CC system cancel improves the efficacy of a vaccine and is induction of immune response improves the efficacy of a vaccine and is corpara, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of vaccines and anther atopic and immune system deficiencies, e.g. lupus carther the administration or malaria, for treating immune system deficiencies, e.g. lupus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; brherapeutic; altergy; asthma; cancer; autoimmune disorder; intection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistosomiamis; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; se.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tuberculosis, acquired immunodeficiency syndrome (AIDS), Leishmania and symptoms resulting from exposure of bio-warfare agent, including Bbola,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   schistosomiasis,
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                                                      (ODN) of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   multiple sclerosis, infections including Francisella,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 3 A; 4 C; 11 G; 2 T; 0 U; 0 Other;
                                                      AAS09551-AAS09662 represent oligodeoxynucleotides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 18.4;
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Best Local Similarity 95.0°
Matches 19; Conservative
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Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG ведпенсев

Claim 5; Page 40; 48pp; English

AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequence. The converse is different from another of the multiple CpG sequence. The CoDN are useful for inducing an immune response, preferably a cell. mediated immune response, involving non-B cell activation, interferon converse in a nuclear of interferon an elibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma, cancer, e.g. solid tumour cancer, a disease associated with the immune system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The constant of immune response improves the efficacy of a vaccine and is used in antisense therapy. The ODN are useful for treating or amoliorating allergic reactions, including eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines against hepatitis A, B and C, human immunodeficiency virus (HIV) and malaria, for treating immune system deficiency virus (HIV) and cancer the efficacy of exputement of seases such as rheumarcoid arthritis and cultiple sclerosis, infections including Prancisela, including Ebola, human and allergic of bio-warfare agent, including Ebola, human and allergic of bio-warfare agent, including Ebola,

Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

ö DB 4; Length 20; 1; Indels Score 18.4; DB Pred. No. 60; 0; Mismatches 1 GGTGCGTCGACGCAGGGGG 20 0; 92.08; 92.08; Local Similarity 95.0 nes 19, Conservative Query Match Matches 硆 ઠે

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Gaps

1 derecercearecadedes 20

AAS09590 standard; DNA; 20 BP AAS09590;

26-SEP-2001 (first entry)

Immunoreactive CpG sequence-containing oligonucleotide #40.

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; bumoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis; coryza; hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV; malaria; Francisella; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; schistcosomisais; tuberculosis; acquired immunodeficiency syndrome; AIDS; Leishmania; Ebola; Anthrax; Listeria; ss.

Synthetic.

WO200151500-A1.

19-JUL-2001.

12-JAN-2001; 2001WO-US001122

14-JAN-2000; 2000US-0176115P

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Verthelyi D; Ishii K,

WPI; 2001-442129/47.

prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG to treat and Oligodeoxynucleotides for inducing an immune response seguences.

Claim 5; Page 33; 48pp; English.

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CODN are useful for inducing an immune response, preferably a cell
mediated immune response, involving non-B cell activation, interferon

Comman (IFN-gamma) production or a humoral immune response involving B

Coll activation, antibody and interleukin-6 production in a host, for

treating, preventing or ameliorating an allergic reaction, e.g. ashima,

Concer, e.g. solid tumour cancer, a disease associated with the immune

CO a symptom resulting from exposure to bio-warfare agent in a human. The

CO a symptom resulting from exposure to bio-warfare agent in a human. The

CO of a symptom response improves the efficacy of a vaccine and is

confidential allergic reactions, including excema, allergic reactions

CO or a symptom response improves the efficacy of a vaccine and is

coryza, hay fever, bronchial asthma, urticaria (hives), food allergic seations, including excema, allergic esciples

CO against hepatitis A, B and C, human immunodeficiency of vaccines

CO against hepatitis A, B and C, human immunodeficiencies, e.g. lupus

CO against hepatitis A, B and C, human immunodeficiencies, e.g. lupus

CO will ple sclerosis, infections as rheumacoid arthritis and

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Sequence 20 BP; 2 A; 3 C; 12 G; 3 T; 0 U; 0 Other;

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Scoring table:

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Minimum DB Maximum DB

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Title: Perfect score:

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AA807153 241 bp mRNA linear EST 07-APR-1998 oc36d11.81 NCI CGAP GCB1 Homo sapiens cDNA clone IMAGE:1351797 3' similar to gb:X03910 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN UP2
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DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
Gound through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
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1 (bases 1 to 241)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index
Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Confeact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Louis M. Staudt, M.D., Ph.D., David Allman,
Ph.D., Gerald Marti, M.D.
cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima
Bonaldo, Ph.D.
                      BDG606855
BCL965042
CA162989
BC3904417
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CA613400
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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:1351797"
                                                                                           CA162989
BG904417
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Copyright (c) 1993 - 2005 Compugen Ltd.
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Gapop 10.0 , Gapext 1.0
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HS_2240_Al_HO2_MR_CIT_Approved Human Genomic Sperm Library D Homo
sapiens genomic clone Plate=2240 Col=3 Row=O, genomic survey
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supported by CESAR, a Special Research Centre of the Australian Research Council. Sequencing supported by the Director's Discretionary Fund of the Australian Genome Research Facility."
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1 (bases 1 to 467)
Mahairas, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T.,
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/note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in
E-Coli DH10B"
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High Throughput Sequencing Center
University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3887
Email: jwallace@u.washington.edu
Sequence Tagged Connector
Plate: 2240 row: O column: 3
Class: BAC ends
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Pred. No. 8.9e+02;
0; Mismatches 1; Indels
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                                                                                                                                                                                Score 17.4; DB 5;
Pred. No. 9.2e+02;
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/mol type="genomic DNA"
/db_xref="taxon:9606"
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Location/Qualifiers
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94.7%;
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Best Local Similarity 94.7%;
Matches 18; Conservative
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Best Local Similarity 94.7
Matches 18; Conservative
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AUTHORS
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Ind
                 BU038662
DH02G09 Helicoverpa armigera larval midgut cDNA library Helicoverpa
armigera cDNA 5', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Vladimir Grubor
Contact: Vladimir Grubor
CESAR--Centre for Environmental Stress and Adaptation Research
Department of Genetics, The University of Melbourne
Parkville, Victoria, 3010, Australia
Tel: +61 3 8344 6139
Fax: +61 3 844 5139
Email: vgrubor@pgrad.unimelb.edu.au
Seq primer: T3 Forward.
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Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
Noctuoidea; Noctuoide; Heliothinae; Helicoverpa.
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/tissue_type="midgut"
/dcv_stage="rifth instar larvae"
/lab_host="XL1-Blue_MRF""
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/strain="AN02"
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/note="Organ: tassels; Vector: HybriZAP; Site_1: EcoRI; Site_2: XhoI; George Chuck dissected immature tassels between 1mm and 3mm. Sharon Stanfield prepared the cDNA library in HybriZAP. Sample insert size range was 350 bp to 3 Kb with a 1 Kb average."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /db_xref="taxon: Jax-19.00" | /db_xref="taxon: Jax-19.00" | /db_xref="taxon: Jax-19.00" | /dev_stage="laaf" | /dev_stage="adult" | /dev
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1 (bases 1 to 469)
Walbot,V.
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                                                                                                                                                                                                                                 /db_xref="taxon:4577"
/tissue_type="tassels"
/tissue_type="tassels"
/dev_stage=="just_after the transition from vegetative to
inflorescence development"
/lab host="XLOLR"
/clone_lib="946 - tassel primordium prepared by Schmidt
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/cultivar="mixed background W23/A188/B73/K55"
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855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
Fax: 650 725 8221
Email: walbot@stanford.edu
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100.0%; Pred. No. 1.4e+03;
iive 0; Mismatches 0;
Fax: 650 725 8221
Email: walbot@stanford.edu
Plate: 946047 row: E column: 07.
Location/Qualifiers
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Class: transposon-tagged.
Location/Qualifiers
                                                                                                                                                 /organism="Zea mays"
/mol_type="mRNA"
/cultivar="OH43"
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    (bases 1 to 443)

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    (bases 1 to 469)

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Maize ESTs from various cDNA libraries sequenced at Stanford
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855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
Fax: 650 725 8221
Enail: walboceatanford.edu
Plate: 946047 row: E column: 07.
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Department of Biological Sciences
Stanford University
Stanfornia Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
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Best Local Similarity 100.0%; Pred. No. 1.4e+03;
Matches 17; Conservative 0; Mismatches 0;
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Contact: Walbot V
Department of Biological Sciences
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/tissue_type="tassels"
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/cultivar="OH43"
     mays cDNA, mRNA sequence.
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502 bp mRNA linear EST 31-JAN-2002 952026C01.y1 952 - BMS tissue from Walbot Lab (reduced rRNA) Zea mays cDNA, mRNA sequence. BM428951. BM428951.1 GI:18450673 EST.
                      CG305844 1.5_KB Zea mays genomic clone ZMMBMa0683120,
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    (bases 1 to 502)

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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Citek, R.W., Numberg, A., Robbins, D. and Lakey, N.
Consortium for Maize Genomics
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Maize ESTB from various cDNA libraries sequenced at Stanford
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/clone="zwmBwao683120"
/clone lib="zm_0.7 1.5_KB"
/note="vbctor": pBGSK-; Site 1: HincII; 0.7-1.5 kb
methylation filtered genomic DNA library"
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Tel: 301-838-5843
Fax: 301-838-0208
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Fax: 650 725 8221
Email: walbot@stanford.edu
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100.0%; Pred. No. 1.4e+03;
:ive 0; Mismatches 0;
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Department of Biological Sciences
Stanford University
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/strain="B73"
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/organism="Zea mays"
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Class: sheared ends.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                 Unpublished (2002)
Other GSSs: OGOBX58TH
Contact: Cathy Whitelaw
                                                                    genomic survey sequence
                                                                                                        CG305844.1 GI:34220058
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site 'www.zmdb.iastate.edu' and follow the links for 'RescueMu.' Grid M was grown at University of Arizona in 2001. DNA was extracted from leaf punches, double digested using BamHI and BglII, and ligated to form circular plasmids. DH10B cells were transformed and then screened on LB plates with ampicillin."
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1 (Jases 1 to 481)
Hainey, C.F., Dolan, M., Miao, G.H., Vogel, J.M., Whitsit, M.S., Arthur, L.W., Hanafey, M., Morgante, M. and Tingey, S.V.
Maize Mapping Project/DuPont Consensus Sequences for Design of Overgo Probes

1 (Dupblished (2002))
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/db_xref="MalzeDB:638670"
/db_xref="Hazon:4577"
/clone lib="Maize Mapping Project/DuPont Cornsensus Library"
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100.0%; Pred. No. 1.4e+03;
:ive 0; Mismatches 0;
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Zea mays PC0146698 mRNA sequence.
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BU499653 573 bp mRNA linear EST 12-SEP-2002
946179A11.y1 946 - tassel primordium prepared by Schmidt lab Zea
mays CDNA, mRNA sequence.
BU499653
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(Dade, Panicoideae, Andropogoneae, Zea.
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855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 2227
Email: 950 725 8221
Email: walbot@stanford.edu
Plate: 946178 row: A column: 11.
                  85.0%; Score 17; DB 9; Le
ilarity 100.0%; Pred. No. 1.3e+03;
Conservative 0; Mismatches 0;
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100.0%; Pred. No. 1.3e+03;
cive 0; Mismatches 0;
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to 3 Kb with a 1 Kb average."
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Department of Biological Sciences
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/tissue_type="tassels"
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/cultivar="OH43"
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                                                                                                                                                                                                                                                        increa" Vector: pUC19; Site_1: ECORI; Site_2: ECORI; The library was prepared by George Rudenko using, poly (A) selected RNA and Universal Riboclone CDNA Synthesis System (Promega, CDNA was synthesized using both random and oligo (dT) primers in separate reactions and equipped with ECORI adaptors. Library was size-fractionated on agarose gels (for insert size >400bp) and non-directionally cloned into ECORI-dispersed pUC19 vector. Blue/white selection on carbenicillin-containing plates was used to recover
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OG0BX58TH ZM_0.7_1.5_KB Zea mays genomic clone ZMMBMa0683120,
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T., Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T., Citek, R. W., Nunberg, A., Robbins, D. and Lakey, N.
Unpublished (2002)
Other GSSSTV
                                                                                                                                                                                                 /lab_host="DH10B"
/clone_lib="952 - BMS tissue from Walbot Lab (reduced
rRNA)"
                                                      /db_xref="taxon:4577"
/clone="zwWBMa068120"
/clone_lib="zm_0.7_1.5_KB"
/note="vector: pBGSK-; Site_1: HincII; 0.7-1.5 kb
methylation filtered genomic_DNA library"
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9712 Medical Center Drive, Rockville, MD 20850, USA
Tel: 301-838-5843
Fax: 301-838-0208
Email: whitelaw@tigr.org
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tive 0; Mismatches 0;
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/organism="Zea mays"
/mol type="genomic DNA"
/strain="B73"
2026 row: C column: 01.
Location/Qualifiers
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Class: sheared ends.
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Plate: 952026
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Email: whitelaw@tigr.org
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1 (bases 1 to 795)
Whitelaw, C.A., Quackenbush, J., Van Aken.S., Utterback, T., Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T., Citek, R.W., Nunberg, A., Robbins, D. and Lakey, N.

Consortium for Maize Genomics
Other GSSs: OGIAL84T
                                                                                                                                                                                                                                                                                                                        /organism="Zea mays"
/mol type="mRNA"
/db_xref="dbEST:552026C01.y1"
/db_xref="adbEST:552026C01.y1"
/db_xref="caxon:4577"
/clone lib="1111 - Uniquene III from Maize Genome Project"
/note="frhig library represents the unique genes found in the third round of EST sequencing at Stanford University for the maize genome project. Sequences are present from library 952. Contigs were assembled using ZmDBAssembler and 2 representatives from each contig were selected for the Unique set. All singlets were also selected."
Zea mays

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopaida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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Walbot, V.
Malbot, V.
Maize ESTs from various cDNA libraries sequenced at Stanford
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                                                                                                                                               Contact: Walbot V
Department of Biological Sciences
Stanford University
855 California Ave, Palo Alto, CA 94304, USA
Tel: 650 723 227
Fax: 650 725 822
Email: walboct@stanford.edu
Plate: 111015 row: B column: 03.
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ilarity 100.0%; Pred. No. 1.3e+03;
Conservative 0; Mismatches 0;
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/organism="Zea mays"
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Email: whitelaw@tigr.org
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Class: sheared ends
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                                                                                                   TITLE
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CL987494
ZMWBHe0004d07.r ZMMBHe Zea mays genomic clone ZMWBHe0004d07 3', genomic survey sequence.
CL987494.1 GI:52555572
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoideae, Andropogoneae, Zea.
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Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Resnick, A., Fraser, C.M., Budiman, M.A., Bedell, J.A., Rohlfing, T.,
Cliek, R.W., Nunberg, A., Robbins, D. and Lakey, N.
Consortium for Maize Genomics
Unpublished (2002)
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Tel: 301-838-5843
Fax: 301-838-0208
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ilarity 100.0%; Pred. No. 1.3e+03;
Conservative 0; Mismatches 0;
                                                                                                                                                                       85.0%; Score 17; DB 9; Le
100.0%; Pred. No. 1.3e+03;
iive 0; Mismatches 0;
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Location/Qualifiers
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Bukaryota; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoddaee; Andropogoneae; Zea.

1 (bases 1 to 1032)

Ma,J.; SanMiguel, P., Liu, R., Haller, K., Soderlund, C. and Bennetzen, J.

ZMMBH sequences

Unpublished (2004)

Contact: Joff Bennetzen

Bennetzen Lab

The University of Georgia

Department of Genetics, C426a Life Sciences Building, Athens, GA 7061, USA

70602, USA

Tel: 706-542-3698

Fax: 706-583-0972

Email: maizeouga -du column: 07

Class: BAC ends.
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/clone_lib="zMmBHe"
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  GSS.
Zea mays
Zea mays
KEYWORDS
SOURCE
ORGANISM
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                                                                                                                                                                                  TITLE
JOURNAL
COMMENT
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AUTHORS
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Search completed: April 29, 2005, 11:55:26 Job time : 1877.14 secs

70 GTGCGTCGACGCAGGG 86

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Sequence 27, Appl Sequence 21, Appl Sequence 41, Appl Sequence 11, Appl Sequence 130, App Sequence 131, App Sequence 131, App Sequence 13619, A Sequence 13620, A Sequence 13621, A Sequence 13622, A Sequence 13623, A Sequence 13624, A Sequence 13625, A Sequence 13624, A Sequence 13624, A Sequence 13624, A

Run on:

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Sequence 2. Application US/09103840A

Sequence 2. Application US/09103840A

Patent NO. 6294328

GENERAL INFORMATION:

APPLICANT: PLEISCHMAN, Robert D.

APPLICANT: PLEISCHMAN, Robert D.

APPLICANT: WHITE, OWEN R.

APPLICANT: VENTER, Claire M.

TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM

TITLE OF INVENTION: TUBERCULOSIS

FILE REFERENCE: 24366-20007.00

CURRENT FILING DATE: 1998-06-24

NUMBER OF SEQ ID NOS: 2

SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: CDC 1551

OTHER INFORMATION: "n" bases at various positions throughout the sequence

OTHER INFORMATION: represent a, t, c or g
US-09-103-840A-2
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Patent No. 6294328
GENERAL INFORMATION:
APPLICANT: FLEISCHWAN, Robert D.
APPLICANT: FLEISCHWAN, Robert D.
APPLICANT: FRASER, Claire M.
APPLICANT: FRASER, Claire M.
APPLICANT: FRASER, Claire M.
APPLICANT: VENTER, JOHN C.
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT PILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.0%; Score 16.8; DB 3; Length 4403765; 90.0%; Pred. No. 54; 1.1ve 0; Mismatches 2; Indels 0;
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US-08-232-246A-27
US-08-232-246A-41
US-08-232-246A-41
US-09-349-016-16487
US-08-311-731A-131
US-09-949-016-13619
US-09-949-016-13619
US-09-949-016-13622
US-09-949-016-13622
US-09-949-016-13622
US-09-949-016-13623
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  FEATURE:
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Sequence 5777, Ap
Sequence 987, App
Sequence 22184, A
Sequence 3, Appli
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Sequence 23, Appl
Sequence 1, Appli
Sequence 1, Appli
Sequence 3, Appli
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Sequence 1, Appli
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Patent No. 5183745
Patent No. 5183745
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Sequence 1, Appli
Patent No. 5183745
                                                                                                                               April 29, 2005, 05:17:55 ; Search time 58.5135 Seconds (without alignments) 559.282 Million cell updates/sec
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Sequence 3, A
Sequence 44,
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Compugen Ltd.
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US-09-252-991A-5777
US-09-912-540-91777
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                  GenCore version
Copyright (c) 1993 - 2005
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Listing first 45 summaries
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Sequence 987, Application US/09902540
; Sequence 987, Application US/09902540
; Patent No. 6833447
; GENERAL INFORMATION:
; APPLICANT: Goldman, Barry S.
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Misgand, Roger C.
; TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof; FILE REFREEMENT APPLICATION NUMBER: US/09/902,540
; CURRENT PILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: 60/217,883
; PRIOR FILING DATE: 2000-07-10
; NUMBER OF SEQ ID NOS: 16825
; SEQ ID NO 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-513-999C-22184/c
US-09-513-999C-22184, Application US/09513999C

Sequence 22184, Application US/09513999C

Patent No. 6783961

GENERAL INFORMATION:
APPLICANT: Duclert, A.
APPLICANT: Duclert, J.Y.

APPLICANT: Duclert, J.Y.

APPLICANT: Glordanc, J.Y.

TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
FILE REPERENCE: 59.US2.REG

CURRENT APPLICATION NUMBER: US/09/513,999C

CURRENT APPLICATION NUMBER: US 60/122,487

PRIOR APPLICATION NUMBER: US 60/122,487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15.8; DB 4; Length 9818;
Pred. No. 2.2e+02;
0; Mismatches 2; Indels 0
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Matches 17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Myxococcus xanthus US-09-902-540-987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: n=a, g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 22184
LENGTH: 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: 116
OTHER INFORMATION: 8=g or
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS FILE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR PRILING DATE: 1998-02-18 PRIOR PILING DATE: 1998-02-18 PRIOR PILING DATE: 1998-02-18 PRIOR PILING DATE: 1998-07-27 NUMBER OF SEQ ID NOS: 33142 SEQ ID NOS: 33142
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Sequence 7777, Application US/09252991A

Patent No. 6551735

GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERGIGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: NUMBER: US/09/252,991A
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR PILING DATE: 1998-02-18
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                                                                                                                                                                                                                                                    2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 79.0%; Score 15.8; DB 4; Best Local Similarity 89.5%; Pred. No. 2.5e+02; Matches 17; Conservative 0; Mismatches 2;
                                                                                                                                                                                                      DB 3;
                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                   Score 16.8; Pred. No. 54;
                                                                                                                                                                                                                                                                                                                                   3719482 GGTGCGTCGACGCTGGCGG 3719501
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US-09-252-991A-5833/c
; Sequence 5833, Application US/09252991A
; Patent No. 6551795.
                                                                                                   ORGANISM: Mycobacterium tuberculosis
CTHER INFORMATION: H37Rv
US-09-103-840A-1
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ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                   84.0%;
90.0%;
                                                                                                                                                                                                Query Match
Best Local Similarity 90.0°
Matches 18; Conservative
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1
LENGTH: 4411529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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                                                                           TYPE: DNA
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Gaps

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TITLE OF INVENTION: ANTI-CD4 ANTIBODY HOMOLOGS USEFUL IN
TITLE OF INVENTION: PROPHYLAXIS AND TREATMENT OF AIDS, ARC AND HIV INFECTION
NUMBER OF SEQUENCES: 61
CORRESPONDENCE ADDRESS:
ADDRESSEE: ALLEGRETIE WITCOFF, LTD.
STREET: 10 SOUTH WACKER DRIVE
CITY: CHICAGO
STATE: ILLINOIS
COUNTRY: U.S.A.
ZIP: 60606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 15.2; DB 4; Length 1999;
Pred. No. 4.6e+02;
            APPLICANT: MUELLER EILEN E.
APPLICANT: HANKE, DEFREY H.
APPLICANT: HANKE, DEFREY H.
APPLICANT: GIMAN, STEVEN C.
APPLICANT: GIMAN, STEVEN C.
APPLICANT: CORVALAN, JOSE R.
TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES TO CTLA-4
FILE REFERENCE: ABX-PF1
CURRENT APPLICATION NUMBER: US/09/472,087
CURRENT FILING DATE: 1999-12-23
PRIOR APPLICATION NUMBER: 66/113,647
PRIOR APPLICATION NUMBER: 66/113,647
PRIOR APPLICATION NUMBER: 66/113,647
SROFTWARE: PALENTIN VEY: 2.1
SEQ ID NO SH PALENTIN VEY: 2.1
SEQ ID NO SH PALENTIN VEY: 2.1
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/916,098A
FILING DATE: UJY 24, 1992
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US91/08843
FILING DATE: No. 5871732ember 27, 1991
CLASSIFICATION: 424
PRIOR DATE: No. 5871732ember 27, 1991
CLASSIFICATION: 424
APPLICATION NUMBER: 07/618,542
FILING DATE: No. 5871732ember 27, 1990
CLASSIFICATION: 424
ATORNEY/AGENT INFORMATION:
NAME: JOHN J. MC DONNELL
REGISTRATION NUMBER: 92,310-G
TELECOMMUNICATION INFORMATION:
TELEPPONE: (312) 715-1000
TELEPPANE: (312) 715-1234
TELEFEX: 910/221-5317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 43, Application US/07916098A
Fatent No. 5871732
GENERAL INFORMATION:
APPLICANT: BURKLY, LINDA C.
APPLICANT: CHISHOLM, PATRICIA L.
APPLICANT: THOMAS, DAVID W.
APPLICANT: ROSA, MARGARET D.
APPLICANT: ROSA, JOSEPH J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            776 GGTGCGTCCAGGCAGGAGGG 757
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85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
US-07-916-098A-43/c
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Sequence 6181, Application US/09489039A

Sequence 61818. Application US/09489039A

Patent No. 6610836

Patent No. 6610836

Taria De Breton et. al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

CURRENT APPLICATION NUMBER: US/09/489,039A

CURRENT FILING DATE: 1999-01-27

PRIOR PILING DATE: 1999-01-29

NUMBER OF SEQ ID NOS: 14342
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Description of Artificial Sequence: OTHER NUCLEIC OTHER INFORMATION: ACID
                                                                                                                                                                                                                                            Sequence 3, Application US/08840551B
Patent No. 6066449
GENERAL INFORMATION:
APPLICANT: Ditkoff, Beth A., et al.
TITLE OF INVENTION: METHOD OF DETECTING METASTATIC THYROID CANCER FILE REFERENCE: 0575/51662/jpw/jkm
CURRENT APPLICATION NUMBER: US/08/840,551B
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15.2; DB 3; Length 531;
Pred. No. 4.9e+02;
0; Mismatches 3; Indels (
  85.0%; Pred. No. 5.1e+02;
tive 0; Mismatches 3; Indels
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; Sequence 54, Application US/09472087
; Patent No. 6682736
; BENERAL INFORMATION:
; APPLICANT: HANSON, DOUGLAS C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               385 GCTGTGTGGACGCAGAGGGG 404
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                                                                                                                         80 derecercraceceeces 61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 85.0%;
Matches 17; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Artificial Sequence
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Best Local Similarity 85.v.
Best Local 17; Conservative
                            17; Conservative
Best Local Similarity
Matches 17; Conserv
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1018 GGTGCGTCCAGGCAGGAGGG 999
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LOCATION:
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US-08-070-116A-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: CELNIKER, ABBIE CHERYL
APPLICANT: CELNIKER, ABBIE CHERYL
APPLICANT: CCLLINS, MARY
APPLICANT: GOLDMAN, SAMUEL
APPLICANT: GOLDMAN, SAMUEL
APPLICANT: GRAY S.
APPLICANT: KNIGHT, ABUNEA
APPLICANT: KNIGHT, ABUNEA
APPLICANT: VELDMAN, GERTRUIDA M.
APPLICANT: VELDMAN, GERTRUIDA M.
APPLICANT: VELDMAN, GERTRUIDA M.
TITLE OF INVENTION: HANAIZED IMMUNOGLOBULIN REACTIVE WITH B7-2 AND METHODS
TITLE OF INVENTION: OF TREATMENT THEREWITH
FILE REPERENCE: 08702.0081-01000
CURRENT APPLICATION NUMBER: US/09/627,896B
CURRENT PILING DATE: 2000-07-27
NUMBER OF SEQ ID NOS: 32
SOFTWARE: PATCHIN VET. 2.1
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                                                                                                                                                                                                                                                                                                                                           Query Match 76.0%; Score 15.2; DB 2; Length 2029; Best Local Similarity 85.0%; Pred. No. 4.6e+02; Matches 17; Conservative 0; Mismatches 3; Indels 0
                                                                                                                                                                                                                                           NAME/KEY: misc_feature
LOCATION: 1
OTHER INFORMATION: /note= "pBAG101 insert"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 23, Application US/09627896B; Patent No. 6827934; GENERAL INFORMATION: APPLICANT: CO. MAN SUNG APPLICANT: VASQUEZ, MAXIMILIANO APPLICANT: CARRENO, BEATRIZ APPLICANT: CELNIKER, ABBIE CHERYL; APPLICANT: GOLDMAN, SAMUEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581 GGTGCGTCCAGGCAGGAGGG 562
                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGTGCGTCGACGCAGGGGG 20
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
LENGHT: 2029 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLGSY: linear
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: 3D1 heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; FEATURE:
NAME/KEY: CDS
; LOCATION: (1919)..(2238)
US-09-627-896B-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
NAME/KEY: CDS
LOCATION: (1341)..(1376)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: CDS
LOCATION: (1495)..(1821)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY: CDS
LOCATION: (655)..(948)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (12)..(417)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-627-896B-23/c
                                                                                                                                                                                                                                                                                                          US-07-916-098A-43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
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1 GGTGCGTCGACGCAGGGGGG 20

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RESULT.

Sequence 1, Application US/08070116A

Sequence 1, Application US/08070116A

Patent No. 585573

GREAT. INFORMATION TO A CONTRACT C
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CD4-GAMMA2 AND CD4-1gG2 IMMUNOCONJUGATES, AND USES THEREOF
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Patent No. 6083478
GENERAL INFORMATION:
TITLE OF INVENTION: CD4-GAMMA2
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cooper & Dunham
STREET: 30 Rockefeller Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    76.0%;
85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 85.09
Marches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: unknown
MOLECULE TYPE: CDNA
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: homo sapien
; CELL TYPE: lymphocyte
US-08-477-460B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-379-516-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 3
LENGTH: 2482
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                APPLICANT: Bluescone, Jeffrey A.
APPLICANT: Zivin, Robert A.
APPLICANT: Jolliffe, Linda K.
TITLE OF INVENTION: METHODS AND MATERIALS FOR MODULATION OF
TITLE OF INVENTION: THE IMMUNO-SUPPRESSIVE ACTIVITY AND TOXICITY OF MONOCLONAL
TITLE OF INVENTION: ANTIBODIES
OURBESPONDENCE ADDRESS: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                     CUNTRY: U.S.
COUNTRY: U.S.
ZIP: 77210
COUNTRY: U.S.
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/55,050
FILING DATE: CONCURRENTLY HEREWITH
CLASSIFICATION DATA:
APPLICATION NUMBER: PCT/US94/06198
FILING DATE: 01-JUN-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/070,116
FILING DATE: 01-JUN-1993
ATTORNEY/AGENT INFORMATION:
APPLICATION NUMBER: 37,259
REGISTRATION NUMBER: 37,259
REGISTRATION NUMBER: ARCD:208
TELEFORMINICATION INFORMATION:
TELEPHONE: (512) 414-7577
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
CARRENT OF SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
CARRIANDEDNESS: SINGLE
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; Sequence 3, Application US/08477460B
; Patent No. 603423
; GENERAL INFORMATION:
; APPLICANT: Progenice Pharmaceuticals, Inc.
; TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
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Best Local Similarity 85.0
Matches 17; Conservative
                                                                                                                                                                                                  STREET: P.O. Box 4433
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1732..2052
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1151..1186
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LOCATION:
FEATURE:
NAME/KEY:
LOCATION:
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US-08-557-050-1
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APPLICANT: Allaway, Graham P.
APPLICANT: Allaway, Graham P.
APPLICANT: Allaway, Graham P.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: No. 608478-Peptidyl Moiety-Conjugated CD4-Gamma2 and CD4-IgG2
TITLE OF INVENTION: Immunoconjugates and Uses Thereof
FILE REPERENCE: 41215-A-PCT-US
CURRENT APPLICATION NUMBER: US/08/379,516
CURRENT FILING DATE: 1996-06-10
EARLIER APPLICATION NUMBER: PCT/US93/07422
EARLIER PILING DATE: 1993-08-06
EARLIER FILING DATE: 1993-08-07
SARLIER FILING DATE: 1992-08-07
SOFTWARE: Patentin Ver. 2.1
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CITY: New York
STATE: New York
STATE: New York
COUNTRY: USA
ZIP: 10112
ZIP: 10112
ZIP: 10112
ZIP: 10112
ZIP: 10112
ZIP: 10112
COMPUTER READABLE FORM:
MEDIUM TYBE: PLODRY disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: Patentin Release #1.24
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/477,460B
FILING DATE: 07-JUN-1995
CLASSIFICATION NUMBER: US 07/927,931
FILING DATE: O7-JUG-1992
ATTORNEY/ASBNT INFORMATION:
FILING DATE: 28,678
REGISTRATION NUMBER: 28,678
REGISTRATION NUMBER: 28,678
TELEPHONE: (212) 977-9550
TELEPHONE: (212) 977-9550
TELEFRAX: (212) 977-9550
TELEFRAX: (212) 977-9809
TELEX: 42553 COOP UI
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
LENGTH: 2482 base pairs
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Pred. No. 4.5e+02;
0; Mismatches 3;
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Query Match 76.0%; Score 15.2; DB 3; Length 2482;
Best Local Similarity 85.0%; Pred. No. 4.5e+02;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Oy 1 GGTGCGTCGACGCAGGGGG 20
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q

Search completed: April 29, 2005, 12:03:05 Job time : 70.6385 secs

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Sequence 31, Appl
Sequence 39, Appl
Sequence 41, Appl
Sequence 21, Appl
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453.893 Million cell updates/sec
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Sequence 4
Sequence 5
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                                                                                                                                                                                   April 29, 2005, 06:00:59 ; Search time 268.243 Seconds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-194-035-39
US-10-194-035-41
US-10-486-755-21
US-10-499-597-19
US-09-874-991C-509
US-09-874-991C-549
US-09-874-991C-542
US-10-068-166-7
US-10-068-166-35
US-10-194-035-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5642217 segs, 3043843248 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published Applications NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                        - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                       1 ggtgcgtcgacgcagggggg 20
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Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
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Match 1
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Perfect score:
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                                                                                                                                                                                   Run on:
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No.
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CA. REPRESENTED BY THE	KMATION:			MALLON:	ENEKAL INFO	FUNDS .
	68160	/100 40A1	tion US 0300604	Applica lo. US20	Sequence 31, Application US/10068160 Publication No. US20030060440A1	; Seque ; Publi
				덮	RESULT 1 US-10-068-160-31	RESULT US-10-0
	ALIGNMENTS				·	
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	-10-194-035-3	12	50	84.0	16.8	44
37,	-10-194-035-3	12	20	4	16.8	43
equence 34,	-10-194-035-3	12	20	4.	9	42
32,	-10-194-035-	15	20		16.8	41
64,	US-10-068-160-64	14	20	84.0	9	40
יאו	US-10-068-160-54	14	202	84.0	, w	3 6
	1-091-	# T	9 6	. 4	76.0) c
Sequence 541, Api	US-09-874-991C-541	Ξ:	20	84.0	φ,	36
538,	-9910	11	20	84.0	9	32
508,	-991C	11	20	84.0	9	34
505	US-09-874-991C-505	1	20	84.0	9	33
Sequence 497, Apr	-874-991C	1 :	2 0	0 4 6	0 6	3 6
167	US-10-425-115-167520	18	1836	85.0	17	30
246	-24809	11	1272	85.0	17	29
88, App	88	15	19	87.0	17.4	28
83,	US-10-194-035-83	12	19	87.0		27
Sequence 3, Applia	US-10-866-022-3 US-10-486-755-7	9 5	2 6	0.0	18	26
Sequence 14, Appl	US-10-068-160-14	1.4	18	0.0	18	24 4 r
u.,	53	11	28	92.0	œ.	23
٠,	4-991C-	11	28	92.0	æ	22
21,	9-597-2	16	Ö 100 100 100 100 100 100 100 100 100 10	92.0	18.4	21
Sequence 25, Apple Sequence 14 Apple	US-10-486-755-75	20 0	2 6	92.0	2ο σ	9 5
50,	6-755-2	18	20	92.0	18.4	18
18	6-755-1	18	20	92.0	18.4	17
4 , A	-10-486-755	18	20	92.0	æ	16
16	US-10-666-022-16	18	20	92.0	8	15
equence 10	-10-194-035-1	12		92.0		1 4
	0.2 - 1 0 - 1 0 4 2 - 1 2 7	•	2	9	78.4	~

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APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: USHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-6199
CURRENT APPLICATION NUMBER: US/10/068,160
FILE OF INVENTE ELING DATE: 2002-02-06
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 31
TYPE: 20

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Oligonucleotide US-10-068-160-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 gerecerceacecages 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 20; Conservative
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: Rinman, Dennis M.
APPLICANT: Rouse, Barry T.
APPLICANT: Zheng, Mei
TITLE OF INVENTION: USE OF CPG OLIGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS
FILE REPERENCE: 4239-64125-02
CURRENT APPLICATION NUMBER: US/10/499,597
CURRENT FILING DATE: 2004-06-17
                                                                                                                      APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS
APPLICANT: THE GOVERNMENT OF THE SECRETARY OF THE DEPARTMENT OF HEALTH AND
APPLICANT: HIGHAN SERVICES
APPLICANT: Himman, Dennis M.
APPLICANT: Gursel, Mayda
APPLICANT: Gursel, Mayda
APPLICANT: Gursel, Mayda
TITLE OF INVENTION: METHOD FOR RAPID GENERATION OF MATURE DENDRITIC CELLS
FILE REPERENCE: 4239-67746
CURRENT APPLICATION NUMBER: US/10/486,755
CURRENT FILING DATE: 2004-02-12
PRIOR FILING DATE: 2004-08-14
PRIOR FILING DATE: 2002-08-13
PRIOR FILING DATE: 2002-08-13
NUMBER OF SEQ ID NOS: 127
SOFTWARE: PatentIn version 3.2
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100.0%; Score 20; DB 18;
Best Local Similarity 100.0%; Pred. No. 4.8;
Matches 20; Conservative 0; Mismatches 0;
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100.0%; Pred. No. 4.8;
ive 0; Mismatches 0;
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                                                  ; Sequence 21, Application US/10486755; Publication No. US20040241841A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-499-597-19
, Sequence 19, Application US/10499597
; Publication No. US20050026245A1
; GENERAL INFORMATION:
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Best Local Similarity 100.0
Matches 20; Conservative
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LENGTH: 20
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APPLICANT: SCRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: URFTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REPERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT PILING DATE: 2002-07-12
PRIOR PILING DATE: 2001-07-19
PRIOR PILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE PATENTIN VET. 2.1
SEQ ID NO 41
LENGTH: 20
                                                                                   APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLIMMAN, Dennis
APPLICANT: KLIMMAN, Dennis
APPLICANT: KLIMMAN, Dennis
APPLICANT: VERTHELYI, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT APPLICATION NUMBER: US 00/10/1122
PRIOR PELLING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR PLILING DATE: 2000-01-14
NUMBER OF SEQ. ID NOS: 119
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                        Sequence 39, Application US/10194035 Publication No. US20030144229A1
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Publication No. US20030144229A1
GENERAL INFORMATION:
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Best Local Similarity 100.
Matches 20; Conservative
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US-10-194-035-39
US-10-194-035-39
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US-09-874-991C-498
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APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PALENTIN VEY: 2.1
                                                                                                                                                                      APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: FLORA, MICHAEL
APPLICANT: TILLE CANT: MINIMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT APPLICATION NUMBER: 60/209,797
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN Ver. 2.1
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                                                                                                           Sequence 498, Application US/09874991C Publication No. US20040052763A1 GENERAL INFORMATION:
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1es 19; Conservative
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LENGTH: 20 .
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LENGTH: 20
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US-09-874-991C-542

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Sequence 7, Application US/10068160
Fublication No. US20030060440A1
GENERAL INFORMATION
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE
APPLICANT: THE GOVERNMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
APPLICANT: VERTHELY! Daniela
TITLE OF INVENTION: OLICODEOXXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILLE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT APPLICATION NUMBER: US/10/068,160
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US-09-874-991C-542
                                                                     APPLICANT: MICHABEL
APPLICANT: KLINMAN, MICHABEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REPREBUCE: 07797.0642-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 542
LENGTH: 20
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Best Local Similarity 95.0%; Pred. No. 29;
Matches 19; Conservative 0; Mismatches
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PRIOR APPLICATION NUMBER: 60/128,898
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: PATENTIN VERBION 3.1
SEQ ID NO 7
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US-10-068-160-35
; Sequence 35, Application US/10068160
; Publication No. US20030060440A1
; GENERAL INFORMATION:
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Publication No. US20040052763A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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1 GGTGCGTCGACGCAGGGGG 20
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                            92.0%;
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Best Local Similarity 95.0%;
Matches 19; Conservative (
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Best Local Similarity
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; Publication No. US20030144229A1
; GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: KLINMAN, Dennis
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: SETHIL, Ken
APPLICANT: OF INFORMAN, Dennis
APPLICANT: SETHIL, Manisla
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: DCT/US01/01122
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR RILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SEQ ID NO 40
LENGTH: 20
LENGTH: 20
LENGTH: 20
LENGTH: 20
LENGTH: 20
LENGTH: 20
APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-61399
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 35
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Publication No. 282030144229A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: ISHII, Ken
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Best Local Similarity 95.0%; Pred. No. 29;
Matches 19; Conservative 0; Mismatches
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; OTHER INFORMATION: Oligonucleotide
US-10-068-160-35
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Sequence 62, Application US/10194035
; Sequence 82, Application US/10194035
; Publication No. US2003014422941
; GENERAL INFORMATION:
; APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE
; APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
; APPLICANT: SILINMAN, Dennis
; APPLICANT: ISHII, Ken
; APPLICANT: VERTHELYI, Daniela
; TITLE OF INVERTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
; TITLE OF INVERTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
; CURRENT APPLICATION NUMBER: US/10/194,035
; CURRENT FILING DATE: 2002-07-19
; PRIOR FILING DATE: 2001-07-19
; PRIOR FILING DATE: 2000-01-14
; NUMBER OF SEQ ID NOS: 119
; SOSTWARE: PATENTIN VEY: 2.1
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGOBEOXYNUCLECTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REPERENCE: 4239-6311.
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR APPLICATION NUMBER: DCT/US01/01122
PRIOR APPLICATION NUMBER: US 60/176,115
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SEQ ID NO SEQ ID NOS: 120
SEQ ID NO 81
LENGTH: 20
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Publication No. US20030144229A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-81
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Pred. No. 29;
0; Mismatches
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Pred. No. 29;
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APPLICANT: The Government of the United States of America, as represented by the APPLICANT: Secretary of the Department of Health and Human Services APPLICANT: Secretary of the Department of Health and Human Services APPLICANT: Userhelyi. Dennis M. APPLICANT: Verhelyi, Dannisla M. TITLE OF INVENTION: METHOD OF TREATING AND PREVENTING INFECTIONS IN IMMUNOCOMPROMISED TITLE OF INVENTION: SUBJECTS WITH IMMUNOSTIMULATORY CPG
TITLE REPERENCE: 4239-66899
CURRENT APPLICATION NUMBER: US/10/666,022
CURRENT PILING DATE: 2003-09-17
PRIOR FILING DATE: 2003-09-17
RINDRE FILING DATE: 2002-09-18
NUMBER OF SEQ ID NOS: 181
SOFTWARE: Patentin version 3.1
APPLICANT: ISHII, Ken
APPLICANT: ISHII, Ken
APPLICANT: VERTHELYI, Daniela
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: PATENTION OF: 2.1
SSEQ ID NO 100
LENGTH: 20
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
US-10-194-035-100
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Pred. No. 29;
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95.0%; Pred. No. 22,
0; Mismatches
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92.0%; Score 18.4; D
Best Local Similarity 95.0%; Pred. No. 29;
Matches 19; Conservative 0; Mismatches
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
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Best Local Similarity 95.01
Matches 19; Conservative
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US-10-666-022-16
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Search completed: April 29, 2005, 12:35:47 Job time : 268.243 secs

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Sequence

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Sequence:

Searched:

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Finus monticola putative NBS-LRR protein G6237 (RGA) gene, partial sequence.
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Coniferopsida, Coniferales, Pinaceae, Pinus,
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BC V8Z 1M5, Canada
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Liu, J.-J. and Extramoddoullah, A.K.M.
Isolation, genetic variation and expression of TIR-NBS-LRR
resistance gene analogs from western white pine (Pinus monticola
bougl. ex. D. Don.)
Mol. Genet. Genomics 270 (5), 432-441 (2004)
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AX352259 8
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Liu, J.-J. and Ekramoddoullah, A.K.M.
Direct Submission
Submitted (08-MAY-2003) Natural Resources (Centre, 506 West Burnside Road, Victoria, Location/Qualifiers
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/organism="Pinus monticola"
/mol_type="genomic DNA"
/db_xref="taxon:3345"
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                                         AC135714
AC094917
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AC14653
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AC165364
AC16536
AC1653
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/gene="RGA"
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DEFINITION
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KEYWORDS
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ORGANISM
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AUTHORS
TITLE
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   AY73561 Arabidops
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AC13911 Rattus no
BX927157 Crynebac
AP004750 Oryza sat
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Z31402 A.thaliana
Z32815 M.musculus
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AC023124 Homo sapi
AL161581 Arabidops
AC005674 Homo sapi
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BD165547 Novel pol
AX123430 Sequence
AX428867 Sequence
                                                                                                April 29, 2005, 04:31:54; Search time 633.081 Seconds (without alignments) 1224.620 Million cell updates/sec
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               5.1.6
Compugen Ltd.
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                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
               GenCore version
Copyright (c) 1993 - 2005
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Maximum Match 100%
Listing first 45 summaries
                                                                        nucleic search, using sw model
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AC113911
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AX123430
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Gapop 10.0 , Gapext 1.0
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length: 2000000000
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WGLRKNKTNMNYDKLSRALRYYTDKNI IKKVĪGQKFVYKFVSFPDILKMDPHAVEISR
SESLLLQDGOCKSPEGREVHHGLGSLEXASASRBYETHGGGVSSFTINLENAPEAFKA
IKTEKLEBECDDSPPVEKVRTVI RFVTNKTDKHITRPVMSLPSTSTRAAAAAASAFLAS
SVSAKISSLMLPNAASVSSVSPSSRSPSLSPDSPLPSEHRSLFLEAACHESDSLEPL
NALSGSKKTKSPSLPPKGKKPKGLEISAPQLLLSGTDIGSIĀLNSPĀLDSGSLTPAFFT
AQTPSGLFLASSPLLPSIFWSSLSPVAPLSPSKRDPPTLINGHMPVPLPS
LÜRAPSPFVLLSPSSFLEPTIFWSSLSPVAPLSPSFT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT 21-JUN-2002
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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Net, a transcription factor of the tcf family, as regulator of angiogenic expression
angiogenic expression
Patent: FP 1202065-A 3 02-MAY-2002;
Aventis Pharma S.A. (FR); INSERM (FR)
Location/Qualifiers
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/organism="Corynebacterium glutamicum"
/mol_type="unassigned DNA"
/db_xref="taxon:1718"
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100.0%; Pred. No. 5.9e+02;
ive 0; Mismatches 0;
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Novel polynucleotides
Patent: BP 1108790-A 3346 20-JUN-2001;
KYOWA HAKKO KOGYO CO., LTD. (JP)
Location/Qualifiers
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/mol_type="unassigned DNA"
/db_xref="taxon:10090"
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Sequence 3 from Patent W00235235.
AX429521 GI:21540795
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Mus musculus
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(C12N1/21,C12R1:13),(C12N1/21,C12R1:01),(C12P13/08,C12R1:15),
C12N15/00,C12N15/00
Novel polymucleotide
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KEIKO OCHIAI,
HARUHIKO YOKOI, NAOKO TATEISHI, AKIHIRO SENOO, MASATO IKEDA, AKIO
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C12P19/00,C12P19/34,C12P21/02,C12Q1/37,C12Q1/68,G01N33/53, PC
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Nakagawa, S., Mizoguchi, H., Ando, S., Hayashi, M., Ochiai, K.,
Yokol, H., Tatesishi, N., Senoo, A., Ikeda, M. and Ozaki, A.
Novel polymuclectien
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Corynebacterium glutamicum
Bacteria; Actinobacteria; Actinobacteridae;
Corynebacterineae; Corynebacteriaceae; Corynebacterium.
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Location/Qualifiers
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/organism="unidentified"
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/db_xref="taxon:32644"
                                                                                                                                                                                 1125 bp
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100.0%; Pre-
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JP 2002191370-A/3346.
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                                193 CTCTGGAGCGTTCTC 179
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PTKPSFKQOKRRAVLKDVSNTSADIIYSELRKGGNIKANRKCLKEPKKAAKEGANSAM
DILVOMHTEKSKLAEDLSKTRAAEAQDVSLSNFKDESTTEGOGBGGSGWELLQVVDID
SINLVOMTEKSKLAEDLSKTRAAEAQDVSLSNFKDESTTEGOGBGGSGWELLQVVDID
SINLVSPQCCSLYAADIYDHIVATELQORPLANYMELVQNDIDPDMRKILIDMLVEVSD
DYKLVPDTLYLTVNLIDRFLSNSYIERQRLQLLGVSCMLIASKYEELSAPGVEEFCFI
TANTYTRRSVLSMEIQILMFVHFRLSVSPTFKFFTRRRFRTAGAGASKVPPIELEYLANY
LABLITLAGYSFLRFLSSLIAASAVFLARMTLOQTDHPWNPTLQHYTRYEVBELKNTVL
AMEDLQLNTSGCTLAATREKYNQPKFKSVAKLISPKRVTLLFSR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      translation="MYCSSSMHPNANKENISTSDVQESFVRITRSRAKKAMGRGVSIP"
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Giovane, A., Pintzas, A., Maira, S.M., Sobieszczuk, P. and Wasylyk, B. Net, a new ets transcription factor that is activated by Ras
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Giovane, A., Pintzas, A., Maira, S.M., Sobieszczuk, P. and Wasylyk, B.
Net, a negative factor switch to positive by Ras
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                                                                                                                              /clone="cyc3bAt"
/tissue_type="cell suspensions"
/clone_lib="cell suspension lambda ZapII"
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/db_xref="Gi:784946"
/db_xref="GOA:Q39073"
/db_xref="Uniprot/TrEMBL:Q39073"
                            organism="Arabidopsis thaliana"
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/clone lib="lambda zap2"
/dev stage="10 days"
295._.1524
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/mol_type="mRNA"
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                                                                                                        /db_xref="taxon:3702"
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Mus musculus (house mouse)
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/gene="cyc3b"
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SVSAKISSLWLPNAASVSSYSPSSSRSPSLSPDSPLPSEHRSLFLEAACHESDSLEPL
NLSSGSKTKSPSLPPKGKKPKGLEISAPQLLLSGTDIGSIALNSPALPSGSLTPAFFT
AQTPSGLFLASSPLLASSPLEMSSLSPVAPLSPARLQGPNTLFOFPTLLNGHMFVPLPS
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ESLLLQDGDCKVSPEGREVHRHGLSSLKSASRNEYLHSGIYSSFTINSLENAPEAFKA
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Three discrete classes of Arabidopsis cyclins are expressed during different intervals of the cell cycle
Proc. Natl. Acad. Sci. U.S.A. 91 (24), 11313-11317 (1994)
95062258
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Submitted (08-MAR-1995) Van Montagu M., Rijksuniverisiteit Gent,
Laboratory of Genetics, Ledeganckstraat, 35, Gent, Belgium, B-9000
On Mar 25, 1995 this sequence version replaced gi:S09426.
Location/Qualifiers
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Direct Submission
Submitted (22-MAR-1994) Van Montagu M., Rijksuniverisiteit Gent,
Laboratory of Genetics, Ledeganckstraat, 35, Gent, Belgium, B-9000
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
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A.thaliana (Columbia) cyc3b mRNA for cyclin 3b protein.
                                                                                                                         Wasylyk, B., Zheng, H., Ayadi, A. and Multon, M.C.
Net, a transcription factor of the tof family, as reanglogenic expression anglogenic expression.
Patent: WO 0235235-A 3 02-MAY-2002;
AVENTIS PHARMA SA (FR); INST NAT SANTE RECH MED (FR)
Location/Qualifiers
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100.0%; Pred. No. 5.9e+02;
tive 0; Mismatches 0; Indels
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/mol type="unassigned DNA"
/db xref="taxon:10090"
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Van Montagu, M.
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FEYMLSFGLKHDDLCAFWIGFCILRGIYIITCFVYDHFITGRTDLLLAHVLMFTHWLLL
FSIMISVIPGVLGLLIDLMIIIISQVPLGESPVYNLLHDWLIGVVVLHIWIFTLTMLTR
INCFATVARTEKLOR TRSVTINKLPFYWLIRDVIGSIIVSLLFTLCVPYVVVNSLFPI
LGFSSAVNLTVQRFIWPAILALIPIWFSVKLIRDLILYLHKLEFDNRYKVGGRLVDFT
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Arabidopsis thaliana DNA chromosome 4, BAC clone F4D11 (ESSAII
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FORVNIRYVGHOIFSLESQKFPVSINDVSTEPVSTLGGPERANSSSSRSVEVUDEREST
GLKEDHYIGFDKNDYVGHOSFVEDVKDKFTLDLLPGYKSSSNESYBRITUEDATAF
RIKTHILESKSDPSVDNLSSEVKKFMNVSNSGVVSITEMMILLHQSRTSHVSLKVR
RSTIDHELLYARTQIBNPPLIENDPLHTPLYMLSWREVSYSTEMKKKVYVYRBGK
RSTIDHELLYARTQIBNPPLIENDPLHTPLYWLSWREVSYSTEMKKKVYVYRBGK
RSTIDHELLYARTQIBNPSTLANDFALSTRYFOPRKAHLFYLPFSSKALEFTLYVPGG
HSDKNLIQFLKNYLDMISSKYSFWNKTGGSDHFLYUACHDMAPSETRQYMAKCIRALCN
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Arabidopsis thaliana
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (16-APR-1998) MIPS, at the Max-Planck-Institut fuer Blochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, Project Coordinator: Mike Bevan, Molecular Genetics Department, Cambridge Laboratory, John Innes Centre, Colney Lane, NR4 7UJ Norwich, UK, E-mail: michael.bevanabbsrc.ac.uk
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/noce="similarity to multiple exostosis 2, Homo sapiens"
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/db_xref="Uniprot/TrambL:065522"
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Pred. No. 6.2e+02;
0; Mismatches 0;
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/variety="Columbia"
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100.0%; Pre
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Reconstruction of cDNA sequences for hypothetical genes in Arabidopsis thaliana from 5' and 3' RACE products
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/db_xref="GI:52354421"

    .2945
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/codon_start=1
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KAKFCLCPSGWEVASPRIVESLYSGCVPVIIADYYVLPFSDVLNWKTFSVHIPISKMP
DIKKILBAITEEEYLNMQRRVLEVRKHFVINRPSKRYDMLHMIMHSIMLRRLANVRIPL
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/gene="F2I11_40"
/note="similarity to synaptobrevin-like protein Sybl1, Mus
musculus, EMBL:MWU133536"
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GADHFFLSCHDWAPDVSAVDPELYKHFIRALCNANSSEGFTPMRDVSLPEINIPHSQL
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AVMEKKAGEHRILLLAKQEMELSIKKLAEKEKEMEFREKLMKTTGKLGSLEMKRTCLD
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WASYSQDRYIFHVKRTDGLIVLCMADERSTGRNIPERFLDDIDHQRFVKTVGRAIHSAQAY
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DKTENMQGNIFRFRKQARRYRTIMWWRNVKLIIALILVLALVVYIAMAFVCHGBSLPS
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/gene="F2111 40"
complement (join (9386. .9476,9672. .9835,9993. .10183,
10386. .10605) /
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complement (join (9386. .9476,9672. .9835,9993. .10183,
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/note="similarity to various predicted proteins,
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/gene="F2111_40"
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/gene="F2111_30"
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irragernlrrdrdtnnsdvgvvsngsvylnaftfhqlrpflsphffpifayslslf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Spermatophyta, Soptas, Core eudicots; rosidas, eurosida II, Brassicales, Brassicaceae, Arabidopsis.

    (bases 1 to 3355)

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Information on performance of analysis and a more detailed annotation of this entry and other sequences of chromosomes 3, 4 and 5 can be viewed at: http://www.mips.biochem.mpg.de/proj/thal/.
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Bevan, M., Peters, S.A., van Staveren, M., Dirkse, W., Stiekema, W.,
Bancroft, I., Mewes, H.W., Rudd, S., Lemcke, K. and Mayer, K.F.X.
Unpublished
                                                                                                                 Gaps
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Bancroft,I., Mewes,H.W., Rudd,S., Lemcke,K. and Mayer,K.F.X.
Unpublished
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                                                                   Length 101715;
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                                                                 Score 15; DB 8; Le
Pred. No. 7.2e+02;
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Arabidopsis thaliana
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                                                93.8%; SCC_
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Ruzny, D. Marie, Merzker, M. Lee., Abramzon, S., Adame, C., Alder, J., Anglan, H., Alabrocke, S., Amin, A., Anguiano, D., Anyallen, C., Angui, A., Anguiano, D., Anyalen, H., Alabrocke, S., Amin, A., Anguiano, D., Anyalebechi, V., Anyagi, A., Ayodeji, M., Baca, E., Baden, H., Balandi, V., Anyalen, H., Alabrocke, S., Amin, A., Anguiano, D., Bandaranishe, D., Barber M., Barnstead, Benahmed, F., Bisalo, K., Bandaranishe, D., Barber M., Barnstead, Benahmed, F., Bisalo, K., Balacki, D., Barnstead, M., Carler, N., Carter, K., Cavazoo, I., Ceasa, H., Center, D., Chacko, J., Charler, C., Cove, J., Chan, Y., Chin, Y., Chare, J., Charler, C., Cavazoo, J., Caras, M., Crael, J., Denson, S., Berano, C., Ding, Y., Dinh, H., Divya, K., Danal, J., Davila, M., Carler, M., Gabis, A., Garner, T., Garza, M., Gebregocraje, E., Gerrer, C., Ding, Y., Evras, C., Falls, T., Falls, T., Falls, M., Carler, M., Gabis, A., Garler, M., Garrer, M., Garrer, M., Gabis, A., Garler, M., Garrer, M., Gabrer, M., Handler, S., Halvey, Y., Karler, C., Hune, J., Lavay, H., Handler, S., Haldun, S.L., Honderon, N., Hennendez, M., Laland, W., Hamil, C., Hamilton, C., Hamilton, K., Marler, M., Mahnedhari, M., Marler, M., Martin, K., Martin, R., Martin, R., Martin, R., Martin, R., Martin, R., Martin, M., Mahnedhari, M., Marler, M., Martin, K., Martin, R., Martin, M., Mahnedhari, M., Manner, M., Martin, M., Mahnedhari, M., Martin, K., Martin, R., Martin, M., M
                                                                                                                                                                AC113911 128789 bp DNA linear HTG 19-NOV-2002
Rattus norvegicus clone CH230-393022, *** SEQUENCING IN PROGRESS
                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                    DRAFT; HTGS_ENRICHED
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AC113911.5 GI:25072582
HTG; HTGS_PHASE2; HTGS_DRAFT; F
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2 CTCTGGAGCGTTCTC
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genee F2111 50"

join (13535. .13625,13706. .13816,14045. .14137,14223. .14372,

44464. .14522,14676. .14747)

genee F2111_50"
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phosphoribosyltransferase, Arabidopsis thaliana,
EMBL:ATAPT2GEN"
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                                                                                                                                                                                                                                                                                                                                   complement (10386. .10605)
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                                     complement (9672. .9835)
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J. Biotechnol. 104 (1-3), 5-25 (2003)
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                                                                                                               Direct Submission

Submitted (19-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 19, 2002 this sequence version replaced gi:23815605.
The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the fature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold'). Within each contig-scaffold') with sequence may extend beyond the ends of the clone and there may be sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        * NOTE: Estimated insert size may differ from sequence length

* (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a 'working draft' sequence. It currently

* consists of 1 contigs. Gaps between the contigs

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

* Location/Qualifiers

I 128789: contig of 128789 bp in length.

Location/Qualifiers

// organism="Rattus norvegicus"

// Ab xref="Laxon:lolls"
// clone="CH230-393022"
Submitted (05-WAR-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA (Dasses 1 to 128789)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Assembly program: Phrap; version 0.990329
Consensus quality: 124060 bases at least Q40
Consensus quality: 125303 bases at least Q30
Consensus quality: 126081 bases at least Q20
Estimated insert size: 125161; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center: Baylor College of Medicine
Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center project name: GTDK
Center clone name: CH230-393022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .125002)
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  JOURNAL
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                                                                         REFERENCE
                                                                                              AUTHORS
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Genomforschung, Universitate Bielefeld; Universitatesstrasse 25, 33615 Bielefeld, Germany
B-mail:Joern.Kalinowski@Cebrec.Uni-Bielefeld.DE
This sequence was accomplished by collaboration between Degussa AG and Bielefeld University.
BX927150.1:51. 348475,
BX927151.1:51. 348475,
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Bx927157 Bx927147
Bx927157.1 GI:41222957
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Corynebacterium glutamicum ATCC 13032

Corynebacterium glutamicum ATCC 13032

Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;

Corynebacterineae; Corynebacteriaceae; Corynebacterium.

(Corynebacterineae; Corynebacteriaceae; Corynebacterium.

(Corynebacterineae; Corynebacteriaceae; Corynebacterium.

(Corynebacterineae; Corynebacteriaceae; Corynebacterium.

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                                                                                                                                                        Gaps
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ch 93.8%; Score 15; DB 2; Length 128789; l Similarity 100.0%; Pred. No. 7.3e+02; 15; Conservative 0; Mismatches 0; Indels 0
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Submitted (21-JAN-2004) Joern Kalinowski,
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LPESTSIHWHGIALHNAADGVPGMTQDPIEPGESFSYVFEVPHGGTYFYHSHTGLQLD
                                                                                                                                                                             QMMPYEWSILTDGQSSSATVQEGQRLRMVMRNRTWMPHPMHIHGHTWALPGSGGLRKD
TVLLRHGETMIADLIADNPGEWAFHCHNAYHMETGMVSSLRYE"
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LRVVAPLAKNPAHVISAADAATVGELGGQVLRRTPEMVGQITGVVQYGLVDPKVDTTY
  translation="MTSSFSRRQFLLGGLVLAGTGAVAACTSDPGPAASAPGPSLRPT"
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/protein id="CAF18904.1"
/db_xref="GI:41222959"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'producE="Thiol-disulfide isomerase or thioredoxin"
'protein id="CAF18905.1"
'db_xref="GI:41222960"
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/locus_tag="cg3291"
3651. .4124
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:910. .2275
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Submitted (03-SEP-2002) Genome Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO 63108, USA (bases 1 to 169260) Wilson, R.K.
                                                                                                                                                                 Direct Submission
Submitted (10-JUL-2004) Genome Sequencing Center, 4444 Forest Fark
Parkway, St. Louis, MO 63108, USA
On Jun 29, 2004 this sequence version replaced gi:38229484.
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Pred. No. 7.4e+02;
0; Mismatches 0; Indels 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequencing vector: M13; 0%
Sequencing vector: plasmid; 100%
Chemistry: Dye-primer ET; 0% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0,990319
Consensus quality: 166593 bases at least Q40
Consensus quality: 167225 bases at least Q20
Consensus quality: 167677 bases at least Q20
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83777. .84899
*note="assembly_name:Contig4"
85000. .110130
/note="assembly_name:Contig8
                                                                                                                                                                                                                                                                                                                                                                                  Web site:http://genome.wustl.edu
Contact: submissions@watson.wustl.edu
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110231. .169260
/note="assembly_name:Contig9"
                     2 (bases 1 to 169260)
McPherson, J.D. and Waterston, R.H.
Direct Submission
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/organism="Mus musculus"
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/db_xref="taxon:10090"
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100.08; Pr.
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Best Local Similarity
Matches 15; Conserv
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                                                                                                                                                                                                                              142638 bp DNA linear PLN 29-APR-2004
Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 6,
AP004750
AP004750.2 GI:46849606
HTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (13-FEB-2002) Takuji Sasaki, National Institute of Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan (B-mail:tsasaki@nias.affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/, Tel:a3-23-3-74-1, Fax:81-299-38-7468)
On Apr 28, 2004 this sequence version replaced gi:18656396.
The orientation of the sequence is from T7 to SP6 of the PAC clone. Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                             Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae, Streptophyra, Embryophyta, Tracheophyta,
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae, Oryzae, Oryza.
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Sciurognathi; Muridae; Murinae; Mus.
                                                                                     Gaps
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Oryza sativa nipponbare(GA3) genomic DNA, chromosome 6, PAC
clone:P0421H01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Oryza sativa (japonica cultivar-group)"
/mol_type="genomic DNA"
/cultivar="Nipponbare"
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                                     93.8%; Score 15; DB 1; Length 140057; 100.0%; Pred. No. 7.38+02; Live 0; Mismatches 0; Indels 0;
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HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sasaki, T., Matsumoto, T. and Yamamoto, K.
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Mammalia, Eutheria, Rodentia, Sciur
1 (bases 1 to 169260)
Wilson, R. K.
The sequence of Mus musculus clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Published Only in Database (2002) 2 (bases 1 to 142638)
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/chromosome="6"
/clone="P0421H01"
                                                                                                                                             56973 CTCTGGAGCGTTCTC 56987
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/codon_start=1
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                                                        Local Similarity
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                                       Query Match
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DEFINITION
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KEYWORDS
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Galagan, J., Gardyna, S., Graham, L., Grand-Pierre, N., Hafez, N., Hagopian, D., Hagos, B., Hall, J., Horton, L., Hulme, W., Illev, I. Johnson, R., Jones, C., Kamat, A., Karatas, A., Kalls, C., Landers, T., Levine, R., Lindblad-Toh, R., Liu, G., Liu, X., Lui, A., Mabbitt, R., MacLean, C., Macdonald, P., Major, J., Manning, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Meneus, L., Mihova, T., Micol, R., Norbu, C., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Rachupka, A., Ramasamy, U., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Schauer, S., Schupback, R., See, C., Sonto, P., Smith, C., Spencer, B., Stange-Thomann, N., Scopaner, S., Viel, R., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassillev, H., Venkataraman, V.S., Viel, R., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (15-JUN-2004) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA ON JUN 15, 2004 this sequence version replaced gi:46358182. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center: Whitehead Institute/MIT Center for Genome Research
Gage, D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             http://ftp.genome.washington.edu/RM/RepeatMasker.html
Faro, S., Ferreira, P., FitzGerald, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@broad.mit.edu
------ Project_Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_lib="RPCI-24 Male Mouse BAC"
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4941. .4987
/rpt_family="GA-rich"
5622. .5838
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'note="clone boundary
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/rpt_family="URRIA"
4320, .434º
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/rpt_family="RSINE1"
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/rpt_family="(GA)n"
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                                                                                                ROD 15-JUN-2004
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
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                                                                                                                                Mus musculus chromosome 7, clone RP24-200120, complete sequence.
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93.8%; Score 15; DB 10; Length 171061;
Best Local Similarity 100.0%; Pred. No. 7.4e+02;
Matches 15; Conservative 0; Mismatches 0; Indels 0;
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Search completed: April 29, 2005, 08:03:55 Job time : 637.206 secs

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Pred. No. is the number of results predicted by chance to have a	score greater than or equal to the score of the result being printed	and is derived by analysis of the total score distributi

SUMMARIES

Description	Add01091 CpG K oli	Aah68311 C qlutami	Abk85615 DNA encod	Ade61030 Human gen	Ade61034 Human gen	Aah68534 C glutami	Aac80587 Immunogen	Aas09557 Immunorea	Abl35643 Immunosti	Abl35670 Immunosti	Abl35629 Immunosti	Abk46435 Immunosti	Acc83067 K class C	Add01102 CpG K oli	Aac80594 Immunogen	Aas09564 Immunorea	Abk46442 Immunosti	Acc83066 K class C	Aac80591 Immunogen	Aaf99525 Immunosti
ΙD	ADD01091	AAH68311	ABK85615	ADE61030	ADE61034	AAH68534	AAC80587	AAS09557	ABL35643	ABL35670	ABL35629	ABK46435	ACC83067	ADD01102	AAC80594	AAS09564	ABK46442	ACC83066	AAC80591	AAF99525
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AASO9561 ABS78240 ABL38807 ABK46439 ACC83065 ACR93065 ACR93065 ACR93065 ACR93065	ABL35 ABL35 ABK46 ACC83 ADD0	AAV27 AAZ41 AAZ41 AAZ41 AAZ41 AAZ41 AAZ41	¥.	ė.	NO:5	act Bis era 6.				BT;		שויננ
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12222222222222222222222222222222222222	3 3 3 3 3 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	66 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ULT	ADD01091 ID ADD0 XX AC ADD0 XX	2 g	S and K	3 0	, i	==	X X	A PEI	The the the
			RES	XXXIP	EXEX EXEX	S X & & & & S	XXXX	7 F X E	X & & X	ZXES	XTTTX	3888888

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tissue where the formation of new blood vessels is desired, and so inducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an area of the subject where angiogenesis is a desired, comprising introducing a CpG oligonucleotide to the area, and so promoting angiogenesis in the subject; and (3) screening for an agent that inhibits neovascularisation, comprising administering a CpG oligonucleotide to a non-human mammal and administering the agent to the mammal, where inhibition of angiogenesis in the animal indicates that the agent is effective in inhibiting neovascularisation. The CpG oligonucleotides have vulnerary, vasotropic and antiarteriosclerotic activities, and can be used in gene therapy. The method and the CpG oligonucleotides can be used in inducing angiogenesis or incovascularisation, such as in subjects who have a wound or who have exhibit male pattern baldness, or subjects who have a wound or who have the resents that inhibit neovascularisation. The present sequence the control in the exemplification of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel polynucleotides derived from Coryneform bacteria, for identifying
                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S, Hayashi M, Ochiai K, Yokoi H;
Ozaki A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid synthesis; vitamin; saccharide;
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0
                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 16; DB 10; Length 16; 100.0%; Pred. No. 45; o; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C glutamicum coding sequence fragment SEQ ID NO: 3346.
                                                                                                                                                                                                                                                                                                                                               Sequence 16 BP; 2 A; 5 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH68311 standard; DNA; 1125 BP.
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Senoh A, Ikeda M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-DEC-1999; 99JP-00377484.
07-APR-2000; 2000JP-00159162.
03-AUG-2000; 2000JP-00280988.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (KYOW ) KYOWA HAKKO KOGYO KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organic acid synthesis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Corynebacterium glutamicum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ACTCTGGAGCGTTCTC
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                                                                                                                                                                                                                                                                                                                                                                                                                    16; Conservative
                                                                                                                                                                                                                                                                                                                the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Coryneform bacterium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-376931/40.
                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
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Tateishi N,
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Matches
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The present invention provides a number of nucleotide and protein sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing

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the expression profile or expression pattern of a gene derived from Corymeform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Corymeform bacterium coryneform bacterium of the producing amino acids, nucleic acids, vitamins, accharides and organic acids, particularly L-1ysine. The present sequence is a nucleic acid described in the exemplification of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the European Patent Office
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NET; mouse; gene; ds; ERP; SAP-1; angiogenesis; transgenic; ulcer; ischaemia; wound healing; vascular restenosis; hypertension; dementia; alzheimer's disease; lymphoedema; atheroselerosis; haemangioma; bone; haemangioendothelioma; ovarian hyperstimulation; endometriosis; ascites; follicular cyst; Kaposi sarcoma; tumour; cancer; allergy; synovitis; respiratory distress; rheumatoid arthritis; pneumonia; thyroiditis; cartilage dysfunction; obesity; sthma; inflammation; hepatitis; glomerulonephritis; diabetic retinopathy; thyroiditis; nasal polyp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to the use of all or part of a NET (also known as ERP or SAP-1) polypeptide to identify compounds modulating angiogenesis or compounds that can be used to prevent or treat pathologies associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Use of all or part of a NET polypeptide to identify compounds useful to modulate angiogenesis and prevent or treat pathologies associated with angiogenic disorders e.g. cardiac ischemia, atherosclerosis or tumor
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                                                                                                                                                                                                       Score 15; DB 5; Length 1125;
Pred. No. 2.4e+02;
                                                                                                                                                                   Sequence 1125 BP; 273 A; 355 C; 283 G; 214 T; 0 U; 0 Other;
                                                                                                                                                                                                                                         0; Indels
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(INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product= "Mouse NET protein"
                                                                                                                                                                                                                  100.0%; Preu. ...
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 36-39; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA encoding murine NET protein.
                                                                                                                                                                                                                                                                                                                                                                                                      ABK85615 standard; DNA; 1230 BP.
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                                                                                                                                                                                                         93.8%;
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                                                                                                                                                                                                                                          15; Conservative
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                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chromosome 10C-D1
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Claim 1; Page; 1017pp; English.

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with angiogenic disorders. The invention also comprises transgenic animals that bear mutations in the NET gene. The method and transgenic animals of the invention are useful to identify compounds to treat pathologies associated with angiogenic disorders involving insufficient vascularisation and requiring increased angiogenesis (e.g. cardiac/pertension, ulcers, alzheimer's disease, lymphocedema, dementia) or involving increased vascularisation and requiring decreased angiogenesis (e.g. atherososis, haemangioma, haemangiocendorhelloma, ovarian hyperstimulation, endometriosis, ascites, follicular cysts, ). They are also useful to identify compounds useful to treat pathologies associated with angiogenic disorders such as Kaposi sarcoma, tumour growth and cancer, or other pathologies in which NET is activated). Such compounds may also be used to treat allergies, dysfunctional uterine bleeding, respiratory distress, rheumarcoid arthritis, bone and cartilage dysfunction, obesity, synovitis, inflammation, hepatitis, pneumonia, nasal polymelectides downregulating or blocking expression of a NET gene, intracellular binding proteins or NET dominant negative mutants. Compounds modulating NET activity may also be included in medicaments to prevent and/or treat pathologies associated with anglogenic disorders. The present sequence represents the DNA encoding the mouse NET protein is lowered in the method of the invention, the gene encoding this protein is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, da, gene, pain, neuronal tissue, gene therapy,
spinal segmental nerve injury, chronic constriction injury, CCI,
spared nerve injury, SNI, Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 93.8%; Score 15; DB 6; Length 1230; Best Local Similarity 100.0%; Pred. No. 2.4e+02; Matches 15; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human gene AF069072, SEQ ID NO 6944.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               located on murine chromosome 10C-D1
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-268312/26.
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Gaps

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The invertion discloses a composition to the mucleic acid sequence actor the invertion discloses a composition of the mucleic acid sequence. Also claimed are a vector comprising the movel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and an expression of the polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal compound that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of the polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the polypeptides given in the cutvity in an animal of one or more of the polypeptides given in the activity in an animal of one or more of the polypeptides given in the compound a pharmaceutical composition compound useful in treating pain and a pharmaceutical composition compound useful in the compound that in a sectivity is useful for preparing a medicament for treating pain and apared nerve injury (SNI) in an animal (e.g. spinal segmental nerve injury (SNI) in an animal (e.g. spene therapy). The sequence presented is a human DNA (shown in Table 2 of the compound of this patent did not form part of the polypeptides of the invention contribution of the polymed and specification) which encodes one of the polymed specification, but was contained in electronic form flates from which is electronic form flates from the patent did not form part of the painted specification, but we contain the patent did not form part of the painted specification, the sequence for this patent did not form the patent did not form the patent did not form the pate
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                                                                The invention discloses a composition comprising two or more isolated rat
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Pred., No. 2.6e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human gene AF069072, SEQ ID NO 6948.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE61034/c
ID ADE61034 Btandard; DNA; 2979 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-2002; 2002WO-US025765.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.8%;
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Best Local Similarity 100.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2003016475-A2.
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corrections a composition computation which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also calidated are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide, a host cell comprising the vector, a method for identifying an audient for identifying an agent that increases or decreases the expression of the polynucleotide sequence that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the polypeptides given in the apprince of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of pain and a pharmaceutical composition comprising the one or more of pain and a pharmaceutical composition comprising the one or more of the polypeptides given in the specification, an estimated in erreating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (Ctung), The sequence presented is a human DNA (shown in Table 2 of the specification) which encodes one of the polypeptides of the invention which single pain. Note: The sequence data continued in electronic form directly from WIPO at the specification, but was obtained in electronic form directly from WIPO at the specification, the polypeptides.
                                                                                     New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                    The invention discloses a composition comprising two or more isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2979 BP; 904 A; 721 C; 735 G; 619 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C glutamicum coding sequence fragment SEQ ID NO: 7069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH68534 standard; DNA; 309400 BP.
                                                                                                                                                       Claim 1; Page; 1017pp; English.
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2000JP-00159162.
2000JP-00280988.
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Les 15; Conservative
                  WPI; 2003-268312/26.
                                          GENBANK; AF069072
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07-APR-2000;
03-AUG-2000;
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The present invention provides a number of nucleotide and protein are queences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from Coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium, saccharides and organic acids, nucleic acids, vitamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described in the exemplification of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the European Patent Office
                                                                                                                                                                mutation point of a gene, measuring expression of a gene, analyzing expression profile or pattern of a gene and identifying homologous gene.
                                                                                                                                             Novel polynucleotides derived from Coryneform bacteria, for identifying
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 309400 BP; 70133 A; 86477 C; 83115 G; 69675 T; 0 U; 0 Other;
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                                                      Yokoi H;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 309400;
                                                S, Hayashi M, Ochiai K,
Ozaki A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 15; DB 5; Length 3v2...
Pred. No. 3.8e+02;
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0; Mismatches
                                                    Mizoguchi H, Ando
Senoh A, Ikeda M,
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                   (KYOW ) KYOWA HAKKO KOGYO KK.
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Best Local Similarity 100...
Best Local 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 CTCTGGAGCGTTCTC 16
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                                                                                                          WPI; 2001-376931/40.
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(ISHI/) ISHII K.
(VERT/) VERTHELYI D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200061151-A2
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                                                      Nakagawa S,
Tateishi N,
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                                                      Nakagawa
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The invention relates to novel immunogenic CpG oligodeoxynucleotides (AAC80581-C80723). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5'-NNNY-OpG-WNNN-3' or 5'-RXY-CpG-RXY or 2'. The central CpG motif is unmethylated, and the oligonucleotides optionally have phosphorothioate linkages which make them more resistant to degradation. The invention also relates to an oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce either a cellmediated (T-cell) response or a humoral (B-cell, antibody) response, with oligonucleotides of the sequence 5'-RX-CpG-RX'3' being able to induce a cell-mediated response, and those of the sequence 5'-NNNT-CpG-WNN-3' being able to induce a humoral response. It is thought that after administration, the oligonucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic cells), which then release cytokines, can able to induce a new relation of natural killer (NK) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The induction of an immune response is useful for treating, preventing or ameliorating an allergic reaction (preferably asthma), or an infection, where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergenic agent or anti-infections and the infections which may be treated include viral, bacterial, fungal and protozoal infections such as tuberculosis, Albs, cleahing and schiscomiasis. Immune response induction may also be conditions, and the infections which may be treated include viral, cased in the treatment of an autoimmune response induction may also be cused in the treatment of an autoimmune disorder (e.g., lupus exprements of bacterial, immune system delicated with immune system delicated with immune system delicated an autoimmune delicated an autoimmune delicated a
                                                                                                                Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     exposure to an agent of biological warfare. An immunogenic CpG oligonuclectide, either alone or in combination with an anti-cancer agent, is useful for treating solid tumour cancer. The induction of an immune response is used in antisense therapy and to improve the efficacy of a vaccine. The oligonuclectide is preferably administered to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic
   Verthelyi D;
                                                                                                                                                                                                                                   Claim 4; Page 25; 46pp; English.
Ishii K,
                                                           WPI; 2001-006880/01.
Klinman D,
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ö 90.0%; Score 14.4; DB 4; Length 16; 93.8%; Pred. No. 3.6e+02; ive 0; Mismatches 1; Indels Sequence 16 BP; 2 A; 6 C; 3 G; 5 T; 0 U; 0 Other; Local Similarity 93.8 Query Match Matches

CpG oligodeoxynucleotide of the invention

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Gaps

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AAS09557 standard; DNA; 16 BP. AAS09557; RESULT 8

(first entry) 26-SEP-2001 Immunoreactive CpG sequence-containing oligonucleotide #7.

CpG sequence; immune response; non-B cell activation; interferon gamma; IFN-gamma; humoral; antibody production; interleukin-6 production; therapeutic; allergy; asthma; cancer; autoimmune disorder; infection; bio-warfare; vaccine; antisense therapy; eczema; allergic rhinitis;

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AASO9551-AASO9662 represent oligodeoxynucleotides (ODN) of at least 10 nucleotides comprising multiple CpG sequences, where one of the CpG sequences is different from another of the multiple CpG sequences. The converse is different from another of the multiple CpG sequences. The converse is different from another of the multiple CpG sequences. The converse is different from an immune response involving a cell activation, antibody and interleukin-6 production in a host, for treating, preventing or ameliorating an allergic reaction, e.g. asthma. Cc treating, preventing or ameliorating an allergic reaction, e.g. asthma. Cc treating, preventing from exposure to bio-warfare agent in a human. The system e.g. autoimmune disorder or an immune system deficiency, infection or a symptom resulting from exposure to bio-warfare agent in a human. The induction of immune response improves the efficacy of a vaccine and is induction of immune response improves the efficacy of a vaccine and is an antisense therapy. The ODN are useful for treating or coryza, hay fever, bronchial asthma, urticaria (hives), food allergies coryza, hay fever, bronchial asthma, urticaria (hives), food allergies and other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of vaccines cand other atopic conditions, for improving the efficacy of third immunoseficiancy syntus (HIV) and malaria, for treating immune system deficiencies, e.g. lupus cultiple sclerosis, infections including Francisella schhartis and multiple sclerosis, infections including Francisella, e.g. lubus the converse of bio-warfare agent, including Ebola, and when a sequence of bio-warfare agent, including Ebola, and when a sequence of bio-warfare agent, including especial converse of bio-warfare agent, including especia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oligodeoxynucleotides for inducing an immune response to treat and prevent an allergic reaction, cancer, an autoimmune disorder and symptoms resulting from exposure to bio-warfare agents, comprise multiple CpG
coryza, hay fever; urticaria; hives; food allergy; atopic condition; hepatitis; human immunodeficiency virus; HIV, malaria; Francisella; lupus erythematosus; rheumatos; multiple sclerosis; schistosomistosomiscos; autitics; multiple sclerosis; schistosomisasis; tuberculosis; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gape
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                                                                                                     Leishmania; Ebola; Anthrax; Listeria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                          (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Verthelyi D;
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Best Local Similarity 93.8
Matches 15; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-442129/47.
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                                                                                                                                                                                                                                                                19-JUL-2001.
                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequences.
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comprises at least one oligonout control and an annual comprises at least one oligonout control and an annual comprises at least one oligonout control and an annual respons or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or amaliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Ebola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to an immunostimulatory composition, which
     infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulatory; vaccine; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
                                                                                                                                                                                        /*tag= a
/note= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oligonucleotides, useful for enhancing an immune response or inducing
cytokinnes, particularly for treating diseases, e.g. cancer, allergy or
HIV infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New immunostimulatory compositions comprising RNA/DNA hybrid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90.0%; Score 14.4; DB 6; Length 16; 93.8%; Pred. No. 3.6e+02;
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                                                                                                                                                      location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 11; Page 62; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klinman DM;
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/*tag=
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                                                                                                                     Synthetic
                                                                                                                                                                        misc RNA
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The present invention relates to an immunostimulatory composition, which comprises at least one oligonucleotide comprising both an RNA region and a DNA region. The composition is useful for enhancing an immune response or inducing cytokines. It can be used as a vaccine adjuvant and in treating diseases, including pathogenic infection, (non-)malignant tumnours (e.g. cancers of the brain, lung, ovary, breast, prostate or colon, or cancers of the brain, lung, ovary, breast, prostate or colon, or carcinomas and sarcomas), autoimmune diseases or allergies (e.g. allergic rhinitis, hay fever or food allergies), Lyme disease, hepatitis, HIV or malaria. The composition is also useful for treating, preventing or ameliorating the symptoms resulting from exposure to a biowarfare agent, e.g. Boola, Anthrax or Listeria. The present sequence is an immunostimulatory oligonucleotide described in the exemplification of
                                                                                                                                                        1..16
/*tag=
//hote= "optionally thymidine is replaced by uracil to
form RNA or DNA/RNA hybrids. Thymidine is linked to at
least one other base through a ribose sugar"
infection; allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; anti-Allergic; cytostatic; antimicrobial; anti-HIV; immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New immunostimulatory compositions comprising RNA/DNA hybrid obligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infection, allergy; cancer; hypersensitivity; bio-warfare; immunostimulant; antiallergic; cytostatic; antimicrobial; anti-HIV;
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                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 11; Page 63; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mond JJ, Flora M, Klinman DM;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-130570/17.
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                                                                                                                                                                                                                                                                           WO200193902-A2.
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                                                                                               Synthetic.
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                                                                                                                                                        misc RNA
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Matches
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DNA/RNA hybrid; phosphorothioate backbone; immunostimulatory; vaccine;

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14-FEB-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                            the vaccine
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  Synthetic.
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                                                                                             /note= "optionally thymidine is replaced by uracil to form RNA or DNA/RNA hybrids. Thymidine is linked to at least one other base through a ribose sugar"
immunosuppressive; protozoacide; virucide; hepatotropic; gene therapy; antiinflammatory; antibacterial; ss.
                                                                                                                                                                                                                                                                                                                     New immunostimulatory compositions comprising RNA/DNA hybrid oligonucleotides, useful for enhancing an immune response or inducing cytokines, particularly for treating diseases, e.g. cancer, allergy or HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unmethylated CpG; oligdideoxynucleotide; ODN; virucide; vaccine; Paramyxoviridae; F protein; respiratory syncytial virus; RSV; viral bronchiolitis; pneumonia; infectious pulmonary disease; bronchopulmonary dysplasia; congenital heart condition; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunostimulatory unmethylated CpG oligodideoxynucleotide #25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90.0%; Score 14.4; DB 6; Length 16; 93.8%; Pred. No. 3.6e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 16 BP; 2 A; 6 C; 3 G; 5 T; 0 U; 0 Other;
                                                           ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                 Example 11; Page 62; 68pp; English.
                                                                                                                                                                                                                                                                      Klinman DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK46435 standard; DNA; 16 BP
                                                                                                                                                                                             07-JUN-2001; 2001WO-US018276.
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                                                                                                                                                                                                                                                                      Flora M,
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                                   Synthetic.
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                                                                                                                                                                                                                                                                      Mond JJ,
                                                                       misc RNA
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Matches
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ABK46435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sterically stabilised cationic liposome; SSCL; ODN; oligodeoxynucleotide; tuberculosis; cytokine; leishmaniasis; AIDS-associated Kaposi's tumour; thyroid; cancer; allergy; eczema; allergic rhinitis; coryza; hay fever; schlstosomiasis; interferon gamma; lupue erythematosus; antimicrobial; asthma; urticaria; autoimmune disease; diabetes; rheumatoid arthritis; CpG motif; interleukin-13; cytostatic; tularemia; malaria; psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vaccine for immunizing patient against respiratory syncytial virus, has epitopes of Paramyxoviridae P protein, and cytosine followed by guanine linked by phosphate bond-oligodideoxynucleotides.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90.0%; Score 14.4; DB 6; Length 16; 93.8%; Pred. No. 3.6e+02; ive 0; Mismatches 1; Indels
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                                                                                                                                                                                                                                                                                                                                    (JACK-) JACKSON FOUND ADVANCEMENT MILITARY MED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple sclerosis; infection; tumour; ss.
                                                                                                                                                                                                                                                                                                                                                                                                              Klinman DM;
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                                                                                                                                                                                                                          10-AUG-2000; 2000US-0224011P.
01-SEP-2000; 2000US-0229307P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-227118/28.
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WO200211761-A2
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Best Local Simil
Matches 15; C
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BT;

Rouse

Klinman DM,

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vascular endothelial growth factor; VEGF; CpG oligonucleotide; neovascularisation; angiogenesis; vulnerary; vasotropic; antiarteriosclerotic; gene therapy; skin graft; male pattern baldness; atherosclerosis; ischaemia; ss.
                (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYTE-) UNIV TENNESSEE RES CORP.
(USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                  Disclosure; Fig 10A; 110pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                               CpG K oligonucleotide SEQ ID NO:66.
                                                                                                                                                                                                                                                                                                                                                                                              ADD01102 standard; DNA; 16 BP.
25-JUL-2002; 2002US-00206407.
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                                  Gursel I,
                                                  WPI; 2003-482260/45.
                                                                                                                                                                                                                                                                                                              Local Similarity
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                                 Klinman DM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
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                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                      Matches
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The present invention describes a method for inducing the production of vascular endothelial growth factor (VEGF) by a cell comprising contacting the call with a CpG oligonucleotide and therefore inducing the production of VEGF by the cell. Also described: (1) inducing neovascularisation in a tissue, comprising introducing a CpG oligonucleotide into an area of the tissue, (2) promoting conducing neovascularisation in the area of the tissue; (2) promoting angiogenesis in an area of the subject where angiogenesis is desired, and so comprising introducing a CpG oligonucleotide to the area, and so comprising introducing a CpG oligonucleotide to the area, and so comprising introducing a CpG oligonucleotide to a non-human mammal and administering a CpG oligonucleotide to a non-human mammal and administering the agent to the mammal, where inhibition of angiogenesis in the enimal indicates that the cpG oligonucleotides have vulnerary, vasotropic and antiarteriosclerotic agent is effective in inhibiting neovascularisation. The CpG oligonucleotides can be used in gene therapy. The method and the CpG oligonucleotides can be used in inducing angiogenesis or neovascularisation, such as in subjects with a skin graft, subjects who continue male pattern baldness, or subjects with a skin graft, subjects who cathoring male pattern baldness, or subjects with a skin graft, subjects who cathoring male pattern baldness, or subjects who have a wound or who have a cathoring and anternal and and an enthod may also be used in screening for agents that inhibit neovascularisation. The present sequence correspondent in the exemplification of the partern because it is used in the exemplification of
                                                                                                                           Inducing the production of vascular endothelial growth factor by a cell, useful for inducing angiogenesis, comprises contacting the cell with a CpG oligodeoxynucleotide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 16 BP; 2 A; 6 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                     Example 7; SEQ ID NO 66; 37pp; English.
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Matches 15; Conservative
Zheng M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the present invention.
                                                             WPI; 2003-559138/52
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to sterically stabilised cationic liposomes (SSCL) which comprises a cationic lipid, a co-lipid, stabilising agent and encapsulating a K type oligodeoxymuclecide (ODN) including a CpG motif. The invention is useful in pharmaceutical composition for impairing an invention is useful in pharmaceutical composition for impairing or further in subject in a subject; for stimulating an immune response, which is expression of a cytokine (e.g. interferon gamma), particularly immunotherapeutic response against tumours or stimulating an in vivo or immunotherapeutic response against tumours or stimulating an in vivo or infectious agent e.g. virus, bacteria and fungus. It is also useful for delivering oligodeoxymucleotides including a CpG motif in clinical applications; for treating infectious diseases (e.g. tularemia, malaria, francisella, schistosomiasis, tuberculosis and leishmaniasis), cancer (e.g. solid tumours, AIDS-associated Kaposi's tumour, thyroid cancer etc), allergy (e.g. eczema, allergic rhinitis or coryza, hay fever, bronchial or allergic asthma, urticaria, food allergies), autoimmune conseases (e.g. diabetes, rheumatoid arthritis, lupus erythematosus and multiple sclerosis) and psoriasis. The present sequence is a K class CpG ODN potentially useful for encapsulating in SSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                              Cationic liposome composition for delivering oligodeoxynucleotides including a CpG motif in clinical applications, comprises a cationic lipid, a co-lipid, stabilizing agent and an encapsulated oligonucleotide.
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                                                                                                                                  Joshi BH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 16 BP; 2 A; 6 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                               Kawakami K,
                                                                                                                               Ishii KJ,
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Gaps

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CpG oligodeoxynucleotide, unmethylated, antigen-presenting cell; immunogenic; cytokine release, natural killer cell; NR cell activation; cell-mediated immune response; T-cell response; humoral response; B-cell response; antibody production; immune response induction; vaccine; allergy, asthma; infection; bacterial; viral; fungal; protozoal; parasitic; tuberculosis; AIDS; autoimmune disease; lupus erythematosus; rheumatoid arthritis; multiple sclerosis; solid tumour; cancer; immune deficiency; biological warfare agent; cytostatic; antiarthritic; antimicrobial; antiallergic; protozoacide; tuberculostatic; antiarthritic; antiasthmatic; dermatological; phosphorothioate; ss. Immunogenic CpG oligodeoxynucleotide, SEQ ID NO:14. 12-APR-2000; 2000WO-US009839. WO200061151-A2. 19-OCT-2000. Synthetic

Verthelyi D;

99US-0128898P.

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Klinman D, Ishii K,
      (ISHI/) ISHII K.
(VERT/) VERTHELYI D.
               WPI; 2001-006880/01.
     (KLIN/) KLINMAN D.
 12-APR-1999;
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The invention relates to novel immunogenic CpG oligodecoxynucleotides (CAGG05812-C8073). The oligonucleotide are at least 10 bases long and comprise one of the generic sequences 5.NNNT-CpG-WNNN-3' or 5.-RY-CpG-RY 3'. The central CpG motif is unmethylated, and the oligonucleotides of the oligonucleotide and recentral cpg motif is unmethylated, and the oligonucleotide delivery complex comprising an oligonucleotide of the invention and a targetting agent, and a pharmaceutical composition comprising the oligonucleotide delivery complex. The oligonucleotides are able to induce a threat a cell-mediated response, and those of the sequence 5'-RY-CpG-RY-3' being able to induce a humoral lesponse. It is thought that after a cell-mediated response or a humoral lesponse, it is thought that after administration, the oligonucleotide acts on antigen-presenting cells administration, the oligonucleotide acts on antigen-presenting cells candinistration, the oligonucleotide acts on antigen-presenting cells (e.g., macrophages and dendritic cells) which then release cytokines, leading to activation of natural killer (MX) cells. A cell-mediated or humoral response can then occur by activation of T- or B-cells. The candinistration of natural killer (MX) cells. A cell-mediated or humoral response is useful for treating, preventing or amplication of natural killer (MX) cells. A cell mediated or where an immunogenic CpG oligonucleotide is administered either alone or in combination with an anti-allergatic agent or anti-infections and the infections which may be treated include erzema, allergic conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include viral, conditions, and the infections which may be treated include erzema, allergic conditions which may be treated include sections and the infections which may be administed to a described Novel oligonucleotides useful for the prevention and treatment of allergies, cancer, and autoimmune disorders and for ameliorating symptoms resulting from exposure to a bio-warfare agent. lymphocytes ex vivo, producing activated lymphocytes which are then administered to the host. The present sequence represents an immunogenic CPG oligodeoxynucleotide of the invention Claim 4; Page 26; 46pp; English

Sequence 17 BP; 2 A; 6 C; 4 G; 5 T; 0 U; 0 Other;

Gaps ö 90.0%; Score 14.4; DB 4; Length 17; 93.8%; Pred. No. 3.6e+02; ive 0; Mismatches 1; Indels Query Match
Best Local Similarity 93.8
Matches 15; Conservative

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Search completed: April 29, 2005, 06:26:06 Job time : 165.135 secs

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Strigeidida; Schistosomatoidea; Schistosomatidae; Schistosoma.

Strigeidida; Schistosomatoidea; Schistosomatidae; Schistosoma.

Strigeidida; Schistosomatoidea; Schistosoma.

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Strigeidida; Schistosoma.

Kitajima; J. P., Adamson, R. E., Ashton, P. D., Bonaldo, M. Y. Jr.,

Kitajima; J. P., Adamson, R. E., Ashton, P. D., Bonaldo, M. Y. Jr.,

Leite, R. A., Malaquias, L. C. C., Marques, R. C. P., Miyasato, P. R.,

Nascimento, A. L. T. O., Ohlweiler, P. P., Reis, E. M., Ribeiro, M. A.,

Sa, R. G., Stukart, G. C., Soares, M. B., Gargioni, C., Kawano, T.,

Rodigues, V., Madeira, A. M. B.N., Wilson, R. A., Menck, C. F. M.,

Setubal, J. C., Leite, L. C. C. and Dias-Neto, E.

Transcriptome analysis of the accelomate human parasite Schistosoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence was derived from the FAPESP Schistosoma mansoni EST Genome Project. All sequences in the project were assembled and annotated. This entry and all the assembled sequences can be seen in the following URL http://bioinfo.iq.usp.br/schisto/plate: MA3-99990-M319 row: 7 column: D. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Dr. Sergio Verjovski-Almeida
Departamento de Bioquimica
Instituto de Quimica - Universidade de Sao Paulo
Av. Prof. Lineu Prestes 748 sala 1200, 05508-900 Sao Paulo - SP,
                                                                                                                                                                                                                                                                                                                                                                                         CD081179 264 bp mRNA linear EST 14-SEP-
MA3-9999U-M319-D07-U.G MA3-0001 Schistosoma mansoni cDNA clone
MA3-9999U-M319-D07.G, mRNA sequence.
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Fax: +55-11-3091-2186
Email: verjo@iq.usp.br
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EST 14-SEP-2003

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Searched:

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Database

Result Š.

BP944962 BP944962 BY106539 BY106539

ORIGIN

RESULT 2 BE972956/c LOCUS DEFINITION

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ORGANISM

SOURCE

ACCESSION VERSION KEYWORDS REFERENCE AUTHORS TITLE JOURNAL COMMENT

FEATURES

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Contact: Steven P. Suchyta
Center for Animal Functional Genomics, Department of Animal Science
                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
1 (bases 1 to 199)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Single Pass sequencing. Bases called and alt-trimmed with phred v0.0204425.c. Vector identified by cross match with the -minscore 20 -minmatch 12 options.
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lymph nodes, mammary gland, myogenic satellite cells,
ovary, pancreas, pituitary gland, placenta, skin, spiral
cord, spleen, stomach, tendon, testes, uterus, and
vascular from various developmental and physiological
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Bukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota, Neoptera, Endoptera, Endoptera, Endoptery, Endoptery, Endoptery, Endoptery, Endoptery, Drosophila.

1 (bases 1 to 412)

Kopczynski, C., Platt., D., Campbell, J., Muzong, C., Laufer, A., Peterson, E. and Swimmer, C.

Exelixis Flyrag Est Project CK01 Library

Unpublished (2004)
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EK191532.5prime Exelixis FlyTag CK01 pCDNA-SK+ Drosophila melanogaster cDNA clone EK191532 5, mRNA sequence.
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                                                                                                                                                                                                                                                                                         Center for Animal Functional Genomics.
Generation of ESTs from mixed pig cDNA libraries
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Michigan State University
B215 Anthony Hall, East Lansing, MI 48824, USA
B215 17 355 8443
Fax: 517 432 9168
Email: suchytam@msu.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ACTCTGGAGCGTTCT 15
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                                                                                                                      Sus scrofa (pig)
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              CA778499
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11H-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissue Procurement: CLONETECH Laboratories, Inc.
cDNA Library Preparation: CLONETECH Laboratories, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LIML)
DNA Sequencing by: Inc.yec Genomics, Inc.
clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LIML at:
http://mage.llnl.gov
Location/Qualifiers
                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                  Score 16; DB 6; Length 264; Pred. No. 5.1e+02;
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100.0%; Score 16; DB
Best Local Similarity 100.0%; Pred. No. 5.1
Matches 16; Conservative 0; Mismatches
/dev_stage="adult"
/lab_host="Mus_musculus"
/clone_lib="MA3-0001"
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/organism="Homo sapiens"
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Conservative 0;
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CITBI-E1-2589E3.TR CITBI-E1 Homo sapiens genomic clone 2589E3,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/clone_lib="CITBL-EL"
/note="Vector: pBeloBAC11; Site_1: EcoR1; Site_2: EcoR1;
CalTech Human BAC Library D"
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100.0%; Pred. No. 1.9e+03;
tive 0; Mismatches 0;
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/db_xref="taxon:9606"
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AQ526058.1 GI:4773378
GSS.
Homo sapiens (human)
Homo sapiens
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                                                                                                    Query Match 93.8
Best Local Similarity 100.
Matches 15; Conservative
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AQ526058
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/note="Organ: mixed (see below); Vector: pT7T3D-Pac
(Pharmacia) with a modified polylinker; Site.]: Not I;
Site 2: Eco RI; Equal amounts of plasmid DNA from three
normalized libraries (melanocyte 2NbHM, pregnant uterus
NbHPU, and fettal heart NbHH19W) were mixed, and ss circles
were made in vitro. Following HAP purification, this DNA
was used as tracer in a subtractive hybridization
reaction. The driver was PCR-amplified cDNAs from pools of
5,000 clones made from the same 3 libraries. The pools
consisted of I.M.A.G.E. clones 260232-265223,
340488-345479, and 484488-489479."
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/mol_type="mcMan" meraninggarer.
/db xref="texon:722"
/dlone="EK191532"
/clone="EK191532"
/clone="EK191532"
/clone="EK191532"
/note="Organ: mixed stage embryos, imaginal disks, and adult heads, Vector: pCDNA-SK+; Site=1: Not1; Site_2:
Xho1; Random primed, normalized library from mixed stage embryos, imaginal disks, and adult heads."
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Email: cgapbs r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.

Insert Length: 1814 Std Error: 0.00

Seq primer: -40UP from Gibco
High quality sequence stop: 420.
                                                                                                                          Email: http://www.fruitfly.org/EST, est@fruitfly.berkeley.edu
Plate: EK.1915 row: C column: 8
High quality sequence stop: 393.
Location/Qualiflers
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                                                                                                                                                                                                                                                                                                              1. .412
/organism="Drosophila melanogaster"
Lawrence Berkeley National Lab
One Cyclotron Rd, Berkeley, CA 94720, USA
Fax: 510 486 6798
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AI401438.1 GI:4244525
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Homo sapiens
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Unpublished (1997)
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Best Local Similarity
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AI401438
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Gaps

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1. .495.
| Organism="Strongylocentrotus purpuratus" |
| Amal type="genomic DNN" |
| Clone="Plate=45 Col=7 Row=E" |
| Clone="Plate=45 Col=7 Row=E" |
| Clone="late=45 Col=7 Row=E" |
| Clone="Strongylocentrotus purpuratus, purple sea |
| Clone="Strongylocentrotus purpuratus, purple sea |
| Amaliam genomic BAC library" |
| Amaliam genomic BAC library |
| Amaliam genomic BAC Clones in B-Coli |
| DH10B" |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=MRO&t2=MRO-HT0164-191099-002-a04&t5=1999-10-19&t4=1)
Seg primer: puc 18 forward
High quality sequence start: 8
High quality sequence start: 8
Liocation/Qualifiers
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I (bases I to 50%)

HCGP http://www.ludwig.org.br/ORESTES.

The FAPESP/LICR Human Cancer Genome Project
Unpublished (1999)

Contact: Simpson A.J.G.

Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research

Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/do_xref="taxon:9606"
/do_stage="Adult"
/clone lib="HT0164"
/note="Organ: head_neck; Vector: puc18; Site_1: Smal;
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     Natl. Acad. Sci. U.S.A. 97 (17), 9514-9518 (2000)
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AW367384
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Pred. No. 2e+03;
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100.0%; Pred. No. ...
0; Mismatches
                                                                              Davidson, EH,
                                                                           Contact: Cameron, RA, Davidson, EH
Division of Biology 156-29
California Institute of Technology
Pasadena California 91125, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .508
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                        High quality sequence stop: 495.
Location/Qualifiers
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Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
                                                                                                                                                                                                                                            Plate: 45 row: E column: 7
Seq primer: SP6
Class: BAC ends
                                                                                                                                                                   Tel: (626) 395-8421
Fax: (626) 793-3047
Email: acameron@caltech.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AW367384.1 GI:6872034
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Best Local Similarity
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AW367384
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                                                                                                                                                                                                                                                                                    High Throughput Sequencing Center
University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3818
Fax: (206) 616-3887
Email: jwallace@u.washington.edu
Clones are derived from the human BAC library RPCI-11. For BAC
library availability, please contact Pieter de Jong
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/ordering bac.htm)
or from Resear h Genetics (info@resgen.com). BAC end Web Server:
Plate: 885 row: B column: 23
                                             1 (bases 1 to 480)
Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T.,
Keller,A., Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /Clone lib="RPCI-11 Human Male BAC Library"
//note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
Male blood DNA was isolated from one randomly chosen donor and partially disested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at EcoRI sites"
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Strongylocentrotus purpuratus
Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Buechinoidea; Echinoida;
Strongylocentrotidae; Strongylocentrotus.
1 (bases 1 to 495)
Cameron, R.A., Mahairas, G., Rast, J.P., Martinez, P., Biondi, T.R.,
Swartzell, S., Wallace, J.C., Poustka, A.J., Livingston, B.T.,
Wray, G.A., Ettensohn, C.A., Lehrach, H., Britten, R.J., Davidson, E.H.
and Hood, L.
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SP 0045 Al C04 SP6E Strongylocentrotus purpuratus, purple sea urchin, sperm genomic BAC library Strongylocentrotus purpuratus genomic clone Plate=45 Col=7 Row=E, genomic survey sequence.
                                                                                                                                Sequence-tagged connectors: A sequence approach to mapping and scanning the human genome Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999) 99380589
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/db_xref="taxon:9606"
/clone="Plate=885 Col=23 Row=B"
                                                                                                                                                                                                                                                                   Contact: Mahairas GG, Wallace JC, Hood L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
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Location/Qualifiers
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AZ141640.1 GI:8293543
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Matches 15; Conserv
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AUTHORS
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Length 521;

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Score 15;
Pred. No.
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Location/Qualifiers
              93.8%; Sc.
100.0%; Pre
0; 1
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                                                                                                                      CTCTGGAGCGTTCTC 250
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                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Sorghum bicolor"
/profession="Rorghum bicolor"
/mol type="mRNA"
/cultivar="182620c"
/db xref="taxon:4558"
/clone="HS1_18_E02_A012"
/dab hoste="MHJ08-T1 phage-resistant E. coli"
/dab hoste="MHJ08-T1 phage-resistant E. coli"
/dab hoste="MHJ08-T1 phage-resistant E. coli"
/dlone lib="Heat-ahocked seedlings"
/note="Vector: pME18S-FL3; Site_1: Xho1; Site_2: Xho1; The
library was prepared from polyAF RNA from 6-day-old
seedlings grown in hydroponic culture and heat-shocked at
40-42 C for 4 or 24 hr. After heat shock, roots and leaves
were harvested and tissues combined for RNA isolation.
Double-stranded cDNA was cloned unidirectionally into
different DaralII sites of the pME18S-FL3 vector (5-prime
Site_2: Smal, A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in the Human Genome Center, University of Tokyo Institute of Medical Science; plant material and RNA prepared at Taxas A & W University, Bequencing done in the Laboratory for Genomics and Bioinformatics, University of Georgia. Sequence ends have been trimmed to exclude vector and regions below Phred quality 16. Three-prime sequences are presented as their reverse complement and have been trimmed to exclude exclude polyA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.

1 (bases 1 to 521)

Cordonnier-Pratt, M.-M., Wentzel, V., Suzuki, Y., Sugano, S., Klain, R.R., Liang, C., Sun, F., Sullivan, R., Shah, M., Buchanan, C.D., Bastman, A. and Pratt, L.M.

An EST database from Sorghum: heat-shocked seedlings
Other ESTE: H31 18 E02.91 A012
Contact: Cordonnier-pratt, MM.
                                                                                                                                                                                                                                                                                                                                                                                                                                 HSI_18 E02.bl A012 Heat-shocked seedlings Sorghum bicolor CDNA CD205752 CD205752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, USA
Tel: 706 542 1860
Fax: 706 583 0210
                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                Length 508;
                                                                                                                                                                                         Query Match 93.8%; Score 15; DB 2; Length 508
Best Local Similarity 100.0%; Pred. No. 2e+03;
Matches 15; Conservative 0; Mismatches 0; Indels
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POLYA=Yee.
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Sorghum bicolor
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ORIGIN

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Abteilung Genetische Grundlagen der Pflanzenzuechtung
Abz-eilung Genetische Grundlagen der Pflanzenzuechtung
Max-Planck Institut fuer Zuechtungsforschung
Carl von Linne weg 10, Cologne, D-50829, Germany
Email: koncz@mpia-koeln.mpg.de
transgenic cell line was obtained by transformation with the T-DNA
of ppCV6NFHyg Agrobacterium binary vector; the left border junction
of T-DNA insertion 3322e1 was isolated in B. coli after EcoRI
digestion and self-circularization of plant DNA; clone 3322e1
carries a plant DNA fragment of 6.4 kb that extends from an EcoRI
site to the left-border junction of pPCV6NFHyg T-DNA tag; sequences
of the left T-DNA border are excluded from the submission
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(bases 1 to 544)
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AF005835 Arabidopsis thaliana 332-2 Arabidopsis thaliana genomic clone 3322e1 similar to A. thaliana cyclin 3b mRNA with GenBank Accession Number 231402, genomic survey sequence.
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                                                            Gaps
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/clone_lib="Arabidopsis thaliana 332-2"
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/mol_type="genomic DNA"
/ecoType="Col-1"
DB 6;
                                                         Mismatches
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Arabidopsis thaliana
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ACCESSION
VERSION
KEYWORDS
SOURCE
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Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 18
and -minmatch 12 options.
PCR PRIMERS
FORWARD: AGGAAACAGCTATGACCAT
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1 (bases 1 to 561)
Fahrenkrug, S.C., Smith, T.P.L., Freking, B.A., Cho, J., White, J., Vallet, J., Wiste, J., Rohrer, G.A., Pertea, G., Sultana, R., Quackenbush, J. and Keele, J.W.
Porcine gene discovery by normalized cDNA-library sequencing and EST cluster assembly
                                                                                                                                                                                                                                                                                                                              /clone lib="MARC 2PIG" /clone lib="WARC 2PIG" /note="Vector: pCMV SPORT6; Site_1: Not1; Site_2: Sal1; Library made from pooled tissue from testis, ovary, endometrium, hypothalamus, pitultary, and placenta."
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                                                                                                                                                                                                                           /organism="Sus scrofa"
/mol_type="mRNA"
/db_xref="taxon:9823"
/tissus_type="pooled"
/lab_host="bH108"
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/db_xref="taxon:9823"
/tissue_type="pooled"
/lab_host="DH108"
/clone_lib="MARC_2PIG"
                                                                                                                          BACKWARD: GTTTTCCCAGTCACGACG
Plate: 120 row: L column: 3
Seq primer: ATTTAGGTGACTATAG.
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BACKWARD: GTTTTCCCAGTCACGACG
Plate: 120 row: K column: 4
Seg primer: ATTTAGGTGACACTATAG.
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Sus scrofa
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                                                                                                                                                                                                                                                                                                                                                      Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt trimmed with phred
vo. 980904.e. Vector identified by cross_match with the -minscore 18
and -minmatch 12 options.
PCR PRIMERS
PCRARARD: AGGAAACGTARGACCAT
BACKWARD: GTTTCCCAGTCACGACG
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1 (Bases 1 to 555)
Fahrenkrug, S.C., Smith, T.P.L., Freking, B.A., Cho, J., White, J., Quallet, J., Wise, T., Rohrer, G.A., Pertea, G., Sultana, R., Ouackenbush, J., and Keele, J.W.
Porcine gene discovery by normalized cDNA-library sequencing and
                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Cetartiodactyla; Suina; Suidae; Sus.
1 (bases 1 to 555)
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                                                                               Fahrenkrug, S.C., Smith, T.P.L., Freking, B.A., Cho, J., White, J., Vallet, J., Wise, T., Rohrer, G.A., Pertea, G., Sultana, R., Quackenbush, J. and Keele, J.W.

Porcine gene discovery by normalized CDNA-library sequencing and
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100.0%; Pred. No. 2e+03;
tive 0; Mismatches 0; Indels
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Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4366
Fax: 402 762 4390
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Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
TE1: 402 762 4360
Fax: 402 762 4390
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Mamm. Genome 13 (8), 475-478 (2002)
22213789
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Mamm. Genome 13 (8), 475-478 (2002)
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Seg primer: ATTTAGGTGACACTATAG.
Location/Qualifiers
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/db xref="taxon:9823"
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/lab_host="DH10B"
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Sus scrofa
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Matches 15; Conserv
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SM Brassica oleracea

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Sparmatophyta; eudicotyledons; core eudicots;
rosida; eurosida II; Brassicales; Brassicaceae; Brassica.

I (bases 1 to 640)
S Town, C.D., van Aken, S., Utterback, T., Koo, H. and Fraser, C.M. Whole genome shotgun sequencing of Brassica oleracea

I (phyblished (2001)
Other GSSs: BOHFOS9TR
Contect: Chris Town
TIGR
TIGR
FIGH
FAX: 301-838-3223
Fax: 301-838-2208
                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                       BHS01762 640 bp DNA linear GSS 13-DEC-2001 BOHF059TF BOHF Brassica oleracea genomic clone BOHF059, genomic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: cdcownetigr.org

Email: cdcownetigr.org

DNA is from a doubled haploid provided by Tom Osborn.

Seq primer: TF

Class: sheared ends.

Location/Qualifiers

1. .640

/ Organism="Brassica oleracea"
/ mol_type="genomic DNA"
/ strain="TOLOODH3"
/ db_xref="texon:3712"
/ clone="BOHFOS9"
/ clone=lib="BOHF"
/ note="Vector: pHOS1; Site_1: BstXI; 2-3 kb sheared
genomic DNA inserted into pHOS1 using BstXI linkers"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1; Library made from pooled tissue from testis, ovary, endometrium, hypothalamus, pituitary, and placenta."
                                                                                                                                                          Gaps
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                                                                                                          Ouery Match 93.8%; Score 15; DB 4; Length 561; Best Local Similarity 100.0%; Pred. No. 2e+03; Matches 15; Conservative 0; Mismatches 0; Indels
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BH501762.1 GI:17709859
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                                                                                                                                                                                                                                                                                                                                                                                                        survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSS
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BH501762
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DEFINITION
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VERSION
KEYWORDS
SOURCE
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AUTHORS
TITLE
JOURNAL
COMMENT
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Search completed: April 29, 2005, 11:55:30 Job time: 1504.11 secs

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TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 8
SEQUENCE CHARACTERISTICS;
LENGTH: 20 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTCTCGAGCGTTCTC
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RESULT 1
US-08-386-063-8
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Best Local 9
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                                                                                                                                          April 29, 2005, 05:17:55 ; Search time 46.8108 Seconds (without alignments) 559.282 Million cell updates/sec
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Sequence 37,
Sequence 40,
Sequence 15,
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Sequence 8,
Sequence 10,
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(cgn2_6/ptodata/1/ina/5A_COMB.seq:*

(cgn2_6/ptodata/1/ina/5B_COMB.seq:*

(cgn2_6/ptodata/1/ina/6A_COMB.seq:*

(cgn2_6/ptodata/1/ina/6B_COMB.seq:*

(cgn2_6/ptodata/1/ina/6B_COMB.seq:*

(cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
               GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
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US-08-386-063-10
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US-08-386-063-10
US-08-738-652-19
US-08-738-652-20
US-08-738-652-20
US-09-286-098-9
US-09-325-193A-8
US-09-325-193A-8
US-09-325-193A-9
US-09-325-193A-3
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US-09-191-170-37
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Maximum Match 100%
Listing first 45 summaries
                                                                                                      nucleic search, using sw model
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Gapop 10.0 , Gapext 1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 8, Application US/08386063
Patent No. 6008200
GENERAL INFORMATION
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
ADDRESSER: LAHIVE & COCKFIELD
STREET: 60 STATE STREET, SUITE 510
            US-09-337-619-17
US-09-286-098-39
US-09-284-805-23
US-09-244-805-23
US-09-244-805-23
US-09-244-805-23
US-09-363-144-6
US-09-363-144-6
US-09-363-144-6
US-09-960-3
US-10-096-960-3
US-09-949-016-13423
US-09-949-016-11550
US-09-949-016-11550
US-09-949-016-11940
US-08-386-063-9
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                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIREEL BOSTON
STATE: BOSTON
STATE: MASSACHUSETTS
COUNTY: USA
ZIP: 02109-1875
ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY disk
COMPUTER: BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/386,063
FILING DATE:
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: ARNOLD, BETH E.
REGISTRATION UNBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-013CP
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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Gaps

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Length 20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Arthur M. Krieg, M.D.
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; LOCATION: 3 _ CTHER INFORMATION: "N indicates 5 methyl cytosine" US-08-386-063-10
                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 90.0%; Score 14.4; Dest Local Similarity 93.8%; Pred. No. 78; Matches 15; Conservative 0; Mismatches
                       FILING DATE:

(CLASSIFICATION:

ATTORNEY/AGENT INNORMATION:

NAME: ARNOLD, BETH E.

REGIETRATION NUMBER: 35,430

REFERENCE/DOCKET NUMBER: UIZ-013CP

TELECOMMUNICATION INFORMATION:

TELEPAX: (617)227-7400

TELEPAX: (617)227-7400

TELEPAX: (617)227-5941

INFORMATION FOR SEQ ID NO: 8:

LENGTH: 20 base pairs

LENGTH: 20 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: DNA

US-08-386-063-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSE: LAHIVE & COCKFIELD
STREET: 60 STATE STREET, SUITE 510
CITY: BOSTON
CITY: BOSTON
COUNTY: USA
ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: ADDRESSEN: PC-DOS/MS-DOS
SOCTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/386,063
FILING DATE:
CLASSIFICATION:
NAME: ARNOLD, BETH E:
REGISTRATION NUMBER: UIZ-013CP
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION OF TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 DASS PAIRE
         APPLICATION NUMBER: US/08/386,063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-08-386-063-10
; Sequence 10, Application US/08386063
; Patent No. 6194388
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 20 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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; Patent No. 6194388
; GENERAL INFORMATION:
    TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
; NUMBER OF SEQUENCES: 27
; CORRESPONDENCE ADDRESS:
    ADDRESSEE: LAHIVE & COCKFIELD
    STREET: 60 STATE STREET, SUITE 510
    CITY: BOSTON
    STATE: MASSACHUSETTS
    COUNTRY: USA
    ZIP: 02109-1875
; COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
    COMPUTER: IBM PC Compatible
    COMPUTER: IBM PC Compatible
    OPERATING SYSTEM: PC-DOS/MS-DOS
    SOFTWARE: ASCII text
    CURRENT APPLICATION DATA:
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                                                                                     APPLICANT Arthur M. Krieg, M.D.
TITLE OF INVENTION: IMMUNOMODULATORY OLIGONUCLEOTIDES
NUMBER OF SEQUENCES: 27
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 STATE STREET, SUITE 510
CITY: BOSTON
STATE: MASSACHUSETTS
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; LOCATION: 3 _ .
; COTHER INFORMATION: "N indicates 5 methyl cytosine" US-08-386-063-10
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                                                                                                                                                                                                                                                                                          ZIP: 0219-1875

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/386,063
FILING DATE:
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: ARNOLD, BETH E.
REGISTRATION NUMBER: 35,430
REFERENCE/DOCKET NUMBER: UIZ-013CP
TELECHOME: (617)227-7400
TELECHOME: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UIZ-013CP
US-08-386-063-10; Sequence 10, Application US/08386063; Patent No. 6008200; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 20 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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Best Local Similarity 93.89
Matches 15, Conservative
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Patent No. 6207646

GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION:
FILE REFRENCE: C1039/7004 HCL
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358

EARLIER APPLICATION NUMBER: US 08/276,358

EARLIER PILING DATE: 1994-07-15

EARLIER PILING DATE: 1995-02-07

NUMBER OF SEQ ID NOS: 55

SOFTWARE: FastSEQ for Windows Version 3.0

LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REFERENCE: C1039/7004 HCL.
CURRENT APPLICATION WUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
SOFTWARE: FastSEQ for Windows Version 3.0
IENGTH: 20
                                                                                      Length 20;
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                                                                                        DB 3;
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                                                                                    90.0%; Score 14.4; D 93.8%; Pred. No. 78; iive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Synthetic oligonucleotide
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Pred. No. 78;
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                                                                                    Query Match
Best Local Similarity 93.8
Matches 15; Conservative
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NAME/KEY: modified base

LOCATION: (3) ...(3)

OTHER INFORMATION: m5c
US-08-738-652-20
  ; LOCATION: (14) ... (14)
; OTHER INFORMATION: m5c
US-08-738-652-19
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Best Local Similarity
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APPLICANT: Krieg, Arthur M.
TITLE OF INVENTION: Immunatory Nucleic Acid Molecules
TITLE OF INVENTION: Immunatory Nucleic Acid Molecules
FILER REFERENCE: C1039/7004 HCL
CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
NUMBER OF SEQ ID NOS: 55
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                    APPLICANT: Krieg, Arthur M.

TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules FILE REFERENCE: C1039/7004 HCL
CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
BARLIER APPLICATION NUMBER: US 08/276,358
EARLIER APPLICATION NUMBER: US 08/276,358
BARLIER FILING DATE: 1994-07-15
BARLIER FILING DATE: 1995-02-07
WUMBER OF SEC ID NOS: 55
SOFTWARE: FastSEQ for Windows Version 3.0
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                        1; Indels
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90.0%; Score 14.4; Di
Best Local Similarity 93.8%; Pred. No. 78;
Matches 15; Conservative 0; Mismatches
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  93.8%; Pred. No. 78;
tive 0; Mismatches
                                                                                                                                                                                                           Sequence 18, Application US/08738652B
Patent No. 6207646
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19, Application US/08738652B Patent No. 6207646
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                                                                                          5 ACTCTCGAGCGTTCTC 20
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                                                             1 ACTCTGGAGCGTTCTC
Best Local Similarity 93.8
Matches 15, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: modified base LOCATION: (3)...(3) OTHER INFORMATION: m5c
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LENGTH: 20
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GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
APPLICANT: Weiner, George
TITLE OF INVENTION: Unmune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cycokines
TITLE OF INVENTION: Cycokines
TITLE OF INVENTION: Cycokines
TITLE OF INVENTION: Cycokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT PILING DATE: 1999-04-02
EARLIER PILING DATE: 1999-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
SOFTWARE: PASTSEQ for Windows Version 3.0
LENGTH: 20
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Patent No. 6218371
GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT PILING DATE: 1999-04-02
SARLIER APPLICATION NUMBER: US 60/080,729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 3; Length 20;
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Best Local Similarity 93.8%; Pred. No. 78;
Matches 15; Conservative 0; Mismatches
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US-08-286-098-9
; Sequence 9, Application US/09286098
; Patent No. 6218371
                                                                                                                                                                                                                                                                                                                                                                            1 ACTCTGGAGCGTTCTC 16
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Matches 15; Conservative
                                                                                                                                                      ; NAME/KEY: modified base; LOCATION: (14)...(14); OTHER INFORMATION: m5c US-09-286-098-8
                                                                   NAME/KEY: modified base
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LOCATION: (3)...(3)
OTHER INFORMATION: m5c
US-09-286-098-9
LOCATION: (3)...(3)
OTHER INFORMATION: m5c
                                                                                         LOCATION: (10)...(10)
OTHER INFORMATION: m5c
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US-09-286-098-10
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                                                                                                                                          FEATURE:
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Sequence 8, Application US/09286098

Sequence 8, Application US/09286098

Patent No. 6218371

GENERAL INFORMATION:

APPLICANT: Weiner, George

TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Lord No. 1026/HCL

TITLE OF INVENTION: Cytokines

TITLE OF INVENTION: Cytokines

TITLE OF INVENTION: US (909.286, 098

CURRENT FILING DATE: 1999-04-02

EARLIER FILING DATE: 1998-04-03

NUMBER OF SEQ ID NOS: 105

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 8

LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytckines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER FILING DATE: 1999-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 7
LENGTH: 20
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                                                                                                                    Score 14.4; DB
Pred. No. 78;
0; Mismatches
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OTHER INFORMATION: Synthetic Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Application US/09286098
Patent No. 6218371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: SArtificial Sequence
                                                                                                               Query Match
Best Local Similarity 93.8%;
Matches 15; Conservative 0
                                                                                                                                                                                                              1 ACTCTGGAGCGTTCTC 16
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ORGANISM: Artificial Sequence
  NAME/KEY: modified base
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            LOCATION: (18)...(18)
COTHER INFORMATION: m5c
US-08-738-652-21
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Best Local Similarity
Matches 15; Conserv
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SOFTWARE: SISTEM: FC-DOS/M3-DOS
SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/960,774
FILING DATE: 30-OCTOber-1997
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 6239116 08/738,652
FILING DATE: OCTOBER 30, 1996
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 08918/012001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Krieg et al.,
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: SECULES SQUARES, SUITE 1400
                                                                                                                                                                                                                                                                                                                   DB 3; Length 20;
                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 90.0%; Score 14.4; Dest Local Similarity 93.8%; Pred. No. 78; Matches 15; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                   90.0%; Score 14.4; 93.8%; Pred. No. 78;
                    SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 40 LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: La Jolla
STATE: CA
COUNTRY: USA
ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
                                                                                                                                                        OTHER INFORMATION: Synthetic Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 15, Application US/08960774
Patent No. 6239116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FELECOMMUNICATION INFORMATION TELEPHONE: 619/678-5070
                                                                                       TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                        1 ACTCTGGAGCGTTCTC 16
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
'FNGTH: 20 base pairs
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 93.8
Matches 15; Conservative
      NUMBER OF SEQ ID NOS: 105
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STRANDEDNESS: single
                                                                                                                                                                             FEATURE:
NAME/KEY: modified base
COATION: (14)...(14)
OTHER INPORMATION: m5c
US-09-286-098-40
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US-08-960-774-15
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GENERAL INFORMATION:
APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
TITLE OF INVENTION: Cytokines
FILE REPREMENCE: 1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER PRILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SSOTHARE: FRANCE FRANCE OF Windows Version 3.0
SSOTHARE: PRANCE FRANCE OF WINDOWS VERSION 3.0
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APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cycokines
FILE OF INVENTION: Cycokines
FILE REFERENCE: C1039/7026/HGL
CURRENT APPLICATION NUMBER: US/09/286,098
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER PILING DATE: 1999-04-03
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1 Similarity 93.8%; Pred. No. 78;
15; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                        Score 14.4; I
Pred. No. 78;
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: PastSEQ for Windows Version 3.0
SEQ ID NO 10
LENGTH: 20
                                                                                                                                                      FEATURE:
OTHER INFORMATION: Synthetic Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ) OTHER INFORMATION: Synthetic Sequence US-09-286-098-37
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US-09-286-098-40
; Sequence 40, Application US/09286098
; Patent No. 6218371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 37, Application US/09286098 Patent No. 6218371
                                                                                                                                                                                                                                                                                                                                     90.0%;
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                                                                                                              TYPE: DNA ORGANISM: Artificial Seguence
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Best Local Similarity 93.8<sup>3</sup>
"...hes 15, Conservative
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Best Local Similarity
Matches 15; Conserv
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5 ACTCTCGAGCGTTCTC 20

Search completed: April 29, 2005, 12:03:07 Job time : 48.9358 secs

us-10-068-160a-73.rnpb

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April 29, 2005, 06:00:59; Search time 214.595 Seconds (without alignments) 453.893 Million cell updates/sec
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1: /cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/USO6_NEW PUB.seq:*
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4: /cgn2_6/ptodata/2/pubpna/USO6_NEW PUB.seq:*
5: /cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
6: /cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
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8: /cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
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11: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
12: /cgn2_6/ptodata/2/pubpna/USO9_NEW PUB.seq:*
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14: /cgn2_6/ptodata/2/pubpna/USO9_NEW PUB.seq:*
15: /cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
16: /cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
17: /cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
18: /cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
19: /cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
19: /cgn2_6/ptodata/2/pubpna/USO0_NEW PUB.seq:*
20: /cgn2_6/ptodata/2/pubpna/USO0_NEW PUB.seq:*
21: /cgn2_6/ptodata/2/pubpna/USO0_NEW PUB.seq:*
22: /cgn2_6/ptodata/2/pubpna/USO0_NEW PUB.seq:*
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                          - nucleic search, using sw model
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Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                      1 actctggagcgttctc 16
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Maximum DB seq length: 2000000000
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Perfect score:
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Sequence:

Run on:

Searched:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 73, Appl	Sequence 113, App	Sequence 55, Appl	Sequence 24463, A	Sequence 5311, Ap	Sequence 3346, Ap	Sequence 3, Appli	Sequence 1, Appli	Sequence 555, App	Sequence 569, App	Sequence 596, App
TD	US-10-068-160-73	US-10-194-035-113	US-10-499-597-55	US-10-767-701-24463	US-10-425-115-5311	US-09-738-626-3346	US-10-415-181-3	US-09-738-626-1	US-09-874-991C-555	US-09-874-991C-569	US-09-874-991C-596
В	14	15	13	18	18	σ	17	σ	Ħ	:	11
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& Query Match	100.0	100.0	100.0	93.8	93.8	93.8	93.8	93.8	0.06	0.06	0.06
Score	16	16	16	15	15	15	15	15	14.4	14.4	14.4
Result No.	-	7	e	4	S	9	C 7	80	σ	10	11

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113-10-068-160-9	' -	US-10-499-597-66	US-10-194-035-14	US-09-888-326-188	US-09-776-479-724	US-09-776-479-724	US-10-112-653-697	US-10-017-995-724	US-10-194-035-11	US-10-314-578-724	US-10-831-778-724	US-09-874-991C-554	US-09-874-991C-568	US-09-874-991C-595	US-10-068-160-8	US-10-194-035-5	US-10-499-597-59	US-09-824-468-7	US-09-824-468-8	US-09-824-468-9	US-09-824-468-10	US-09-824-468-37	US-09-824-468-40	US-09-800-266A-7	US-09-800-266A-8	US-09-800-266A-9	US-09-800-266A-31	US-09-800-266A-33	US-09-800-266A-34	US-09-846-091-5	US-09-895-007A-7	US-09-895-007A-8	US-09-895-007A-9
14	15	13	15	10	10	1	1.4	14	15	17	18	11	11	11	14	15	13	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	σ	6	6
16	16	16	17	18	18	18	18	18	18	18	18	19	19	19	19	19	19	20	20	20		20		20	20	20	20	20	20	20	20	20	20
0.08	90.06	90.0	90.0	90.0	90.0	90.0	90.0	90.0	0.06	0.06	0.06	90.0	90.0	90.0	90.0	90.0	90.0	90.0	0.06	0.06	0.06	0.06	90.0	0.06	90.0	0.06	90.0	90.0	0.06	0.06	90.0	90.0	90.0
14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
. 12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

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US-10-068-160-73
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llarity 100.0%; Pred. No. 59;
Conservative 0; Mismatches 0; Indels
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ORGANISM: Artificial Sequence
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Best Local Similarity
Matches 16; Conserva
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Sequence 24463, Application US/10767701

Sequence 24463, Application US/10767701

Sequence 24463, Application US/2084A1

Sequence 24463, Application US/2084A1

Sequence 24463, Application NS/2084A1

Sequence 24463, Application US/2084A1

Sequence 24463

Sequence 24463
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APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Con, Yongua
APPLICANT: Con, Yongua
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
TITLE OF INVENTION: 18-21[3322] B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
SEQ ID NOS: 369326
SEQ ID NO 5311
LENGTH: 570
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1.6e+02;
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US-10-425-115-5311
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100.0%; Pred. No. 1...
0; Mismatches
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US-10-767-701-24463
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 5311, Application US/10425115; Publication No. US20040214272A1; GENERAL INFORMATION:
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Best Local Similarity 100.0
----hem 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Sorghum bicolor
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ORGANISM: Zea mays
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   GENERAL INFORMATION:

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GENERAL INFORMATION:

APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE

APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

APPLICANT: ISHII, Ken

APPLICANT: ISHII, Ken

APPLICANT: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE

TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE

FILE REPERENCE: 4239-63317

CURRENT PRILING DATE: 2002-07-12

PRIOR PRILING DATE: 2000-07-19

PRIOR PLILNG DATE: 2000-01-14

NUMBER OF SEQ ID NOS: 119

SOFTWARE PATENCENT OF THE CONTINUE AND THE CONTIN
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Sequence 55, Application US/10499597
Publication No. US20050026245A1
GENERAL INPORMATION:
GENERAL INPORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: Rilman, Dennis M.
APPLICANT: Rouse, Barry T.
APPLICANT: Rouse, Barry T.
APPLICANT: CALSPORT OF CORGOLIGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS
TITLE OF INVENTION: USE OF COLGODEOXYNUCLEOTIDES TO INDUCE ANGIOGENESIS
FILE REFERENCE: 2004-06-17
CURRENT FILING DATE: 2002-12-19
PRIOR PILING DATE: 2001-12-20
PRIOR APPLICATION NUMBER: US 60/343,457
PRIOR FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 106
SOFFWARE: PATENTIN VERSION 3.1
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US-10-194-035-113
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.0
Matches 16; Conservative
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Best Local Similarity
US-10-194-035-113
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LENGTH: 16
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US-09-874-991C-555
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US-09-874-991C-555

Sequence 555, Application US/09874991C

Publication No. US20040052763A1

GENERAL INFORMATION:

APPLICANT: MOND, JAMES J.

APPLICANT: KLINAN, DENNIS M.

TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES

FILE REFERENCE: 07787.0042-0

CURRENT FILING DATE: 2001-06-07

PRIOR PLILON NUMBER: 60/209,797

PRIOR PLILON NUMBER: 60/209,797

PRIOR PLILON DATE: 2000-06-07

NUMBER OF SEQ ID NOS: 620

SOFTWARE: Patentin Ver: 2.1

SEQ ID NO 555
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                                                                                                                                                                                                                                                                                                      FILE KAFEARANIA 1423
CURRENT PAPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: 19 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
PRIOR PILING DATE: 2000-09-03
NUMBER: OF SEQ ID NOS: 7059
SOUTWARE: PATCHIN VET: 3.0
                                                                                          APPLICANT: HAYASHI, MIKIRO
APPLICANT: OCHIAI, KEIKO
APPLICANT: OCHIAI, HANUHIKO
APPLICANT: TATEISHI, NAOKO
APPLICANT: TATEISHI, NAOKO
APPLICANT: IKEDA, MASATO
APPLICANT: OZAKI, MASATO
APPLICANT: OZAKI, MASO
APPLICANT: OZAKI, MASO
APPLICANT: OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
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; ORGANISM: Corynebacterium glutamicum
US-09-738-626-1
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Best Local Similarity 100.
Matches 15; Conservative
                                               MIZOGUCHI, H
ANDO, SEIKO
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US-09-874-991C-569
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Publication No. US20040053833A1

GENERAL INCORMATION:

APPLICANT: WASTLYK, Bohdan

APPLICANT: AYADI, Abdelkader

APPLICANT: AYADI, Abdelkader

APPLICANT: AYADI, Abdelkader

APPLICANT: AYADI, ABRIGGENIC FACTOR EXPRESSION

TITLE OF INVENTION: NET, A TRANSCRIPTION FACTOR OF THE TCF FAMILY, AS REGULATOR OF

TITLE OF INVENTION: NUMBER: US/10/415,181

CURRENT APPLICATION NUMBER: US/10/415,181

CURRENT APPLICATION NUMBER: EP00402968.2

PRIOR APPLICATION NUMBER: P00402968.2

PRIOR FILING DATE: 2000-10-25

PRIOR FILING DATE: 2001-10-23

NUMBER OF SEQ ID NOS: 15

SEQ TRANS. PATENTING VERSION 3.2
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93.8%; Score 15; DB 9; Lr
Best Local Similarity 100.0%; Pred. No. 1.6e+02;
Matches 15; Conservative 0; Mismatches 0;
               APPLICANT: OCHIALI, KEIKO
APPLICANT: YOKOI, HARUHIKO
APPLICANT: TATEISHI, NAOKO
APPLICANT: SENOH, AKTHIRO
APPLICANT: SENOH, AKTHIRO
APPLICANT: OZAKI, AKIO
APPLICANT: OZAKI, AKIO
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: UP 99/377484
PRIOR APPLICATION NUMBER: UP 00/159162
PRIOR FILING DATE: 2000-4-07
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-08-03
NUMBER OF SEQ ID NOS: 7059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Corynebacterium glutamicum
US-09-738-626-3346
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; Publication No. US20020197605A1
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HAYASHI, MIKIRO
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US-10-415-181-3
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LENGTH: 1230
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LENGTH: 1125
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SPECIAL SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-63117
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT APPLICATION NUMBER: PCT/US01/01122
PRIOR FILING DATE: 2002-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 7
LENGTH: 16
                         TITLE OF INVENTION: OLIGODECENTUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE FILE REFERENCE: 4239-61999
CURRENT APPLICATION NUMBER: US/10/068,160
CURRENT FILING DATE: 2002-02-06
PRIOR FILING DATE: 1999-04-12
NUMBER OF SEQ ID NOS: 120
SOFTWARE: Patentin version 3.1
SEQ ID NO 9
LENGTH: 16
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; Publication No. US20050026245A1
; GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: Kliman, Dennis M.
APPLICANT: Kliman, Dennis M.
APPLICANT: Rouse, Barry T.
APPLICANT: Zheng, Mei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA
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93.8%; Pred. No. 4.6e+02;
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Pred. No. 4.6e+02;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Oligonucleotide
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          VERTHELYI, Daniela
                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Artificial Sequence
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Matches 15, Conservative
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Matches 15; Conservative
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          APPLICANT:
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Publication No. US20030060440A1
GENERAL INFORMATION:
APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY THE APPLICANT: KLINMAN, DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: ISHII, Ken
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                                                            APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
FILE REFERENCE: 07787.0042-0
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/209,797
PRIOR FILING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 569
LENGTH: 16
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APPLICANT: MOND, JAMES J.
APPLICANT: FLORA, MICHAEL
APPLICANT: KLINMAN, DENNIS M.
TITLE OF INVENTION: IMMUNOSTIMULATORY RNA/DNA HYBRID MOLECULES
CURRENT APPLICATION NUMBER: US/09/874,991C
CURRENT FILING DATE: 2001-06-07
PRIOR PEPLING DATE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
SOFTWARE PRESENCE: 2000-06-07
NUMBER OF SEQ ID NOS: 620
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Best Local Similarity 93.8%; Pred. No. 4.6e+02;
Matches 15; Conservative 0; Mismatches 1;
Sequence 569, Application US/09874991C
Publication No. US20040052763A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Matches 15; Conservative
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LENGTH: 16
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US-10-068-160-9
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APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE APPLICANT: SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES
APPLICANT: KLINMAN, Dennis
APPLICANT: KLINMAN, Dennis
APPLICANT: SHII, Ken
APPLICANT: SHII, Ken
APPLICANT: ORIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE AN IMMUNE RESPONSE
FILE REFERENCE: 4239-43317
CURRENT APPLICATION NUMBER: US/10/194,035
CURRENT FILING DATE: 2002-07-12
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2000-01-14
NUMBER OF SEQ ID NOS: 119
SEQ ID NO 14
SEQ ID NO 14
LENGTH: 17
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TITLE OF INVENTION: USE OF CPG OLIGODEOXYNUCLECTIDES TO INDUCE ANGIOGENESIS FILE REFERENCE: 4239-64125-02
CURRENT APPLICATION NUMBER: US/10/499,597
CURRENT FILING DATE: 2004-16-17
PRIOR FILING DATE: 2004-16-17
PRIOR FILING DATE: 2002-12-19
PRIOR FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 106
SOFTWARE: PATENTIN VERSION 3.1
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic DNA US-10-194-035-14
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90.0%; Score 14.4; DB 15; Length 17;
Best Local Similarity 93.8%; Pred. No. 4.6e+02;
Matches 15; Conservative 0; Mismatches 1; Indels
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; OTHER INFORMATION: CpG K oligonucleotide
US-10-499-597-66
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Publication No. US20030144229A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Best Local Similarity 93.84
Matches 15; Conservative
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LENGTH: 16
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Search completed: April 29, 2005, 12:35:52 Job time: 219.595 secs

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